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THE JOURNAL

OF

MENTAL SCIENCE

*(Published by Authority of the Medico-Psychological Association
of Great Britain and Ireland).*

EDITED BY

D. HACK TUKE, M.D.,
GEO. H. SAVAGE, M.D.

"Nos vero intellectum longius a rebus non abstrahimus quam ut rerum imagines et
radii (ut in sensu sit) coire possint."

FRANCIS BACON, *Proleg. Instaurat. Mag.*

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"In adopting our title of the *Journal of Mental Science*, published by authority of the *Medico-Psychological Association*, we profess that we cultivate in our pages mental science of a particular kind, namely, such mental science as appertains to medical men who are engaged in the treatment of the insane. But it has been objected that the term mental science is inapplicable, and that the terms, mental physiology, or mental pathology, or psychology, or psychiatry (a term much affected by our German brethren), would have been more correct and appropriate; and that, moreover, we do not deal in mental science, which is properly the sphere of the aspiring metaphysical intellect. If mental science is strictly synonymous with metaphysics, these objections are certainly valid, for although we do not eschew metaphysical discussion, the aim of this Journal is certainly bent upon more attainable objects than the pursuit of those recondite inquiries which have occupied the most ambitious intellects from the time of Plato to the present, with so much labour and so little result. But while we admit that metaphysics may be called one department of mental science, we maintain that mental physiology and mental pathology are also mental science under a different aspect. While metaphysics may be called speculative mental science, mental physiology and pathology, with their vast range of inquiry into insanity, education, crime, and all things which tend to preserve mental health, or to produce mental disease, are not less questions of mental science in its practical, that is, in its sociological point of view. If it were not unjust to high mathematics to compare it in any way with abstruse metaphysics, it would illustrate our meaning to say that our practical mental science would fairly bear the same relation to the mental science of the metaphysicians as applied mathematics bears to the pure science. In both instances the aim of the pure science is the attainment of abstract truth; its utility, however, frequently going no further than to serve as a gymnasium for the intellect. In both instances the mixed science aims at, and, to a certain extent, attains immediate practical results of the greatest utility to the welfare of mankind; we therefore maintain that our Journal is not inaptly called the *Journal of Mental Science*, although the science may only attempt to deal with sociological and medical inquiries, relating either to the preservation of the health of the mind or to the amelioration or cure of its diseases; and although not soaring to the height of abstruse metaphysics, we only aim at such metaphysical knowledge as may be available to our purposes, as the mechanic uses the formularies of mathematics. This is our view of the kind of mental science which physicians engaged in the grave responsibility of caring for the mental health of their fellow men, may, in all modesty, pretend to cultivate; and while we cannot doubt that all additions to our certain knowledge in the speculative department of the science will be great gain, the necessities of duty and of danger must ever compel us to pursue that knowledge which is to be obtained in the practical departments of science, with the earnestness of real workmen. The captain of a ship would be none the worse for being well acquainted with the higher branches of astronomical science, but it is the practical part of that science as it is applicable to navigation which he is compelled to study."—Sir J. C. Bucknill, M.D., F.R.S.

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VOL. XL.

PART 1.—ORIGINAL ARTICLES.

The Mental Symptoms of Myxœdema and the Effect on them of the Thyroid Treatment. By T. S. CLOUSTON, M.D.

In Sir William Gull's classical description of "A Cretinoid State," which we now call Myxœdema, in 1873 he thus describes the mental condition of his first patient: *—"In the patient whose condition I have given above there had been a distinct change in the mental state. The mind, which had previously been active and inquisitive, assumed a gentle, placid indifference corresponding to the muscular languor, but the intellect was unimpaired." He noticed "changes in the temper," and assumed that the mental changes were pathological and a part of the disease. In Dr. Ord's almost equally classical paper, in which he gave the disease its present name,† he referred to the "slowness of thought," the "long and diffuse letters" of one of the patients. In every full description of any case of myxœdema that I have seen some such morbid mental change has been referred to. In the Report for 1888 of the Committee of the Clinical Society of London on Myxœdema, the mental condition of the patients was inquired into, but there is internal evidence that the reporters did not all understand mental symptoms in the same light. Slowness of mental action was the symptom most common, for its absence was only noted in three of the 109 cases. Delusions and hallucinations are stated to have been present in 15 cases, or 14 per cent., and actual insanity in 24 cases, or 22 per cent. There is very frequent mention of morbid suspicions under the mental heading, and memory is usually stated to be impaired where reported on. In his experiments on

* "Clinical Society's Transactions," Vol. vii, 1874.

† "Med. Chirurgical Trans.," Vol. lxi, p. 59.

monkeys, detailed in the report, Horsley specially refers to mental symptoms that followed extirpation of the thyroid. He says the "mental operations, normal at first, soon diminished in activity, and then follow apathy, lethargy, coma." "Gradually the intellect became duller, the energy of the animal diminished, and apathy alternating with idiotic activity resulted."

In March, 1892, Dr. John Macpherson described the cure of the mental and bodily symptoms of an insane myxœdematous patient by thyroid grafting.* In the "Edinburgh Medical Journal" for May, 1893, Dr. G. H. Melville Dunlop has described a case of typical acute mania cured by thyroid feeding.

When Dr. Ord's description of the disease was published in 1878, so that one began to be on the look-out for it—how few things have been seen in medicine till they have been looked for—I found that I had in the asylum one case of myxœdema, a man, as a patient, whose morbid mental peculiarities I described,† and within the year another case, a woman, was admitted. When the correlation of the insanity and the myxœdema was investigated I found that in both cases the patients had never been insane before, that in both of them the bodily symptoms of the disease preceded by a considerable time the mental, that in both the mental symptoms beginning in a very slight, and, to most people, unobservable form, became more marked as the disease advanced, that in both they had come to a head in a decided way just before coming into the asylum from causes exciting to mental disturbance, and that in certain respects they had some psychical symptoms in common, though in most of their symptoms these first two cases of mine differed widely. During the fifteen years that have elapsed since then I have had other seven cases, all women, sent into the asylum, making nine in all, in whom certifiable insanity was associated with myxœdema, the last two of whom I have discharged cured of their combined mental and bodily ailments within the past three months.

Analysis of Mental Faculties Affected.—It would be tedious and not specially profitable to detail the symptoms in each of these cases of myxœdematous insanity. The mental symptoms in every case of insanity must largely depend on the innate qualities of the brain affected and on the environ-

* "Edinburgh Med. Journ.," May, 1892.

† "Edin. Med. Journ.," Feb., 1881, p. 743.

ments and education of its owner. I have gone carefully over our records of each case, and have endeavoured to recall the outstanding mental symptoms of each. There are few varieties of mental disease where the causation is so absolutely definite. Whatever may be the chemical or organic constituent wanting in the blood when the thyroid gland is atrophied, it must necessarily, from the nature of the case, be only a slight and extraordinarily definite deficiency. We see the changes this deficiency produces in the other tissues of the body. Little irritation is caused, and no sign of any inflammatory process. The various tissue-cells seem to be separated more or less by a deposit of mucin. Especially the heart's action and the rest of the vascular system, as well as the heat-forming processes, are depressed. In the great clinical and pathological features of the disease, and in the changes undergone by the various organs, a wonderful similarity exists between one case and another. Had we to do in the brain and other nerve-centres with cells as simple in function as those of other organs, no doubt the results of myxœdema on motion, heat, sensation, and mind would be practically the same in each case. It is as we ascend from the lower to the higher nervous functions that we realize that the same cause of disease may produce quite different effects in different cases, because the reactive qualities of the cell of higher function are so very different in different individuals. All myxœdematous patients have a lowered vaso-motor tone; they all have a lowered temperature; they all have slow voluntary movements in speech, walking, writing, and other motor processes; the reaction time is prolonged in all of them. The amount of this diminution of nervous function is different, of course, in different cases, according to the stage and duration of the disease. It is when we come to the function of sensation that we begin to find marked differences in different cases. Not according to the stage of the disease, but according to the original qualities of the sensory centres is the individual affected. The personal equation evidently comes in noticeably. I found that my only male case of myxœdema was so insensible to pricking and to heat and cold as to amount to marked anæsthesia and analgesia. The other cases varied so much in this respect that two of them were almost normally sensitive, and the others ran all the way between these two extremes.

When the mental functions of the nine cases were analyzed

I found extreme differences, not only in the degree in which each faculty was affected, but in the kind of mental symptoms present. A simple analysis of the mental symptoms put on record in our case books, and as I remember them, brings out this very vividly. The memory was affected by general loss in eight cases; by special loss of power of recalling recent events in certainly eight of the cases; by loss in regard to special points in seven cases; and by a paræsthesia of memory in seven cases. One lady described in detail conversations that never could have taken place. She was not able to distinguish between the remembrance of fancies and the recollection of real events. The general power of attention was diminished in all the cases, but this was accompanied by an accentuation of attention on disagreeable things and delusional beliefs and impressions in at least six of the cases. Curiosity was sluggish in all the cases.

The functions of sight, hearing, taste, and smell were unfortunately not scientifically tested, but there were hallucinations of sight and hearing in at least four cases. My impression is that in all the cases the senses were somewhat blunted. In the male case that went on to death here this was very marked towards the end. His sense of smell was quite lost for a year before his death. In the same case there were pains, evidently of neurotic origin, but called "rheumatic," in the back and wrists for two months before death, this being at a time when sensation was much dulled. One of the women, for a year before admission, imagined that everything smelt of gunpowder, and another imagined that she was continually made to "breathe gas." The affective faculty was in every case more or less abnormal. In every case there could be no doubt that the power of intense emotion was diminished. The patients were less sensitive, cared less for their husbands—all the women were married—and their children than they had done in health, some of them being strikingly indifferent. There was depression of spirits amounting to a melancholic state in five cases; there was exaltation of feeling in abnormal ways in three cases. This was best brought out by the fact that seven cases were classified as mania and two of them as melancholia in our case books on their first admissions, but on the readmission of two of them who had been classified as mania they were put down as melancholia. I would say that in most of the cases the subject consciousness was more diminished than the object consciousness.

The intellectual power was characterized by more or less marked slowness of effort in all the cases. In the more advanced cases this was most marked. The male case seemed for a few months before his death scarcely to be thinking at all, and when an act of judgment was performed it was only as the result of a strong stimulus from without. Dr. Ord noticed this slowness of thinking, and ascribed it to the want of peripheral stimulus through the endings of the sensory nerves being over-padded and so not sending up impressions to the sensory and mental cortex. I think this explanation is not sufficient and it does not account for all the other mental changes. In seven of the cases there were marked insane delusions. These were chiefly of suspicion. No doubt in any brain cortex that is anæmic or ill-nourished delusions of suspicion are apt to arise. The perpetual acts of sound judgment which are needed to prevent misinterpretations of the actions of others, with regard to self, cannot be performed in such cases. Two of the women showed marked jealousy of their husbands. I had an opportunity of seeing the course of two of the cases up till death here, and one in another asylum, and the tendency in each was to become more generally enfeebled intellectually as time went on. But complete and typical dementia was never reached in any case. A strong mental stimulus had always the effect of rousing more mental power than appeared to be present.

Volition was impaired in every case, either in the direction of slowness of putting the will power into action, or of loss of mental inhibition, shown by irritability and anger for inadequate cause. The male case at the last seemed to have small and slow volitional power, no obstinacy, no initiative, and action of every kind seemed to be impossible of origination. He was content to lie in bed all day and not act or speak at all. To exercise that amount of volition implied in setting his articulatory apparatus in action seemed to be impossible except on great and repeated stimulus. The general loss of volitional power was well seen by the inability to control the drink craving in one of the cases; by the excitability in most of them in the early stage; by the tempers they were apt to get into on very slight, real, or quite imaginary causes; by the acts of violence and destructiveness that were seen in two of them.

General Course of the Cases.—Taking a general view of the mental symptoms in all the cases as seen in their clinical

histories from the beginning of the attacks to the end, so far as I had the means of observing them, they differed greatly in the way the symptoms came on, and in the course taken by them within the first year after they assumed such a decided form that they amounted to technical insanity. I have no doubt whatever that in every case a reasonably close analysis of their condition for a year before admission, as compared with their normal states, would have shown that mental changes had taken place of a morbid character during that period at least. Slowness of mental action, morbid suspicion, and some depression of mind were the common early symptoms.

Immediately before admission, and causing the sending of the patient to the asylum, there was in one case an attempt at suicide by poisoning done in a calm, "rational" manner, the reason assigned being misery from a horribly drunken wife. In seven cases there were maniacal outbursts, four of these being of great intensity, with violence, noise, sleeplessness, and an attempt to jump out of the window in one case. In three cases there were delusions of grandeur, one of the women fancying herself "the Duchess of Albany." In one case in the early stages there was absolute delirious incoherence of speech and incapacity to understand what was said to her. All the acute symptoms subsided in every case under the treatment, the discipline, and the regulated life in the asylum within a month after admission. In four of the cases the mental symptoms became so modified that they were discharged as technically "recovered" in periods of from five weeks to six months from admission. These occurred before the thyroid treatment was discovered, but the recoveries were really not complete. In three of them there were relapses and readmissions. In one case the symptoms got so modified that her husband took her home, where she remained. In two of the cases they died here insane and demented. In the last two cases they were cured by thyroid feeding.

In tracing the course of the symptoms to their "natural termination" before the thyroid treatment was adopted the case of the man was the most instructive. He had been the asylum plumber, and when discharged "recovered" as an insane patient he was kept on as a pensioner, living in the place under observation till his death, 15 years after the commencement of his disease. His mental faculties got slower and more languid in their working until his reflexes,

bodily and mental, nearly disappeared. He got inarticulate in speech, his temperature for ten hours before death was only 92° in the axilla, and he was helpless as an infant, but not comatose. He seemed to die from loss of the power of keeping up his animal heat.

The general course of the mental disease in all the cases was, therefore, first, slowness of mental action; secondly, emotional depression; next, irritability, morbid suspicion, non-resistiveness to outward causes of disturbance and general loss of control or maniacal outbursts; then enfeeblement with some exaltation in some cases, and, lastly, lassitude, hebetude, ending in a condition of mental negation just before death.

Heredity.—In only two of the nine cases could I ascertain a neurotic heredity; and in only one was there a distinct mental heredity, viz., a father and brother having been insane.

Exciting Causes of the Mental Attacks.—In three of the cases there had been mental or moral causes in existence sufficient to stand as the immediate “exciting causes.” In two cases an excessive use of alcohol might fairly be put down as an exciting cause, though the previous loss of mental inhibition from the myxœdema had in both probably aggravated any tendency to excess. In the other four cases there seemed to be no exciting cause whatever, the mental symptoms coming on and slowly advancing till they reached the stage of insanity.

Effects of Thyroid Treatment.—We began by using the solid raw thyroid, but soon took to the use of an extract made by our own dispenser, which answered admirably in all respects. We began with large doses, but very soon found their dangers, and latterly never gave more than what was equal to one-sixteenth of a whole thyroid once a day with frequent intermissions. In each of the two cases put under thyroid treatment the disease had existed for over five years, and the mental symptoms in so decided a form as to constitute insanity for over three years in one case and over a year in the other. Both women presented all the typical bodily symptoms of the disease. One weighed 14st. 2lbs. and the other 13st. 9lbs. Both were mentally enfeebled in a mild way; both were irritable and suspicious, had lost their affection for their husbands, and were jealous of them, while their maternal affection was also very much diminished.

Both had insane delusions referring to events at home that had occurred during the early and more acute period of their mental illness. Both were coherent in speech, but with mild impairment of memory and some general confusion and enfeeblement of mind. Both were in a sort of negative state in regard to enjoyment of life.

They were both placed under treatment by half a raw thyroid on the 16th January, 1893. The temperature rose in both at once, and the weight began to diminish. In one there was much sickness, furred tongue, a tendency to fainting, and a distinct intolerance of the drug except in the small doses I have mentioned, viz., $\frac{1}{16}$ of a thyroid, and that only given twice a week. There was a distinct mental improvement in both within the first month of treatment. The irritability and morbid suspiciousness were the first symptoms to become modified; then there was an improved cheerfulness and an increasing sense of *bien être*; then there came increased intellectual activity, greater power of attention, more legitimate curiosity, a greater tendency to dress smartly and to dress their hair better, and towards feminine adornment. It was at least two months before either of them fully believed in the treatment or went into it heartily. The patient who was made sick by the treatment had several times to be compelled by me to go on with it. No amount of argument, no appeal to duty, and no painting in the most vivid colours of the marvellous cure that was to be effected would induce her to take it. This obstinacy and want of imagination I looked on as symptoms of the mental enfeeblement. Both women steadily "brightened up," until the first case, who had been insane for a year, was discharged recovered on May 17th, that is after four months of treatment. She was sane, and had lost 22lbs. in weight. She would stay in the asylum no longer, and her relatives would not allow her to do so. She was wonderfully changed mentally since admission. Her relatives said after she got home that she had not been so well mentally for many years. She took pleasure in her work and her family. She took only one dose of thyroid ($\frac{1}{16}$ of a gland) four days after leaving the asylum. She walked about a great deal seeing her friends, who were a drinking set, having a festive time, with a good deal of drink and excitement, all of which was quite contrary to the advice I had given her. On the tenth day after discharge she felt ill, and her daughter gave her some

whisky. She went to bed, slept, had an attack of vomiting in the morning, the vomit being a dark fluid; she complained of pain in her throat and of breathlessness, but took a hearty breakfast, eating two ducks' eggs. Soon afterwards she fell back dead when talking with her husband. I have no doubt whatever that she died of syncope from over exertion and whisky while her heart was still in a weakened condition from the effects of the myxœdema.

The other case, who had been ill for three years, remained in the asylum for six months after treatment had begun, and she improved mentally and bodily all the time. She was absolutely changed in facial expression. She became a cheerful, dimple-cheeked, attractive woman, in most marked contrast to her forbidding appearance on admission. When she had been home for three weeks her husband wrote she was still improving every day, taking walks, seeing her family, enjoying indoor games and the companionship of old friends, resuming her old habits and ways, with her affection for husband and children revived after many years of estrangement and dormancy. Instead of refusing she insisted on getting a dose of the thyroid every week. Since then I hear she is "perfectly well in all respects," and her friends think her cure "a miracle."

I am strongly impressed by two considerations in the treatment of myxœdema by the thyroid feeding. The first is that it should be very slow and prolonged. The second is that after the heart and brain tissues have been set free from the perilous stuff that has impaired their working, the danger is not past and the cure not fully complete for a long time after apparent recovery and technical sanity have been established. The damage of years to the tissues of such infinitely delicate and all important organs it would be quite unreasonable to expect to be fully repaired in a few months.

Two pathological facts that have lately come under my observation in regard to the cerebral cortex have impressed me deeply with the possible recuperative capacity of the cortical structure.

One was a puerperal case of a few weeks' standing, a curable case by every clinical standard, who died in a few days of maniacal exhaustion, and whose cortical cells Dr. Middlemass found in a state of marked and advanced degeneration, with spider cells and proliferated nuclei round the vessels and the

neuroglia. If such degeneration is really curable, then we need not despair of recovery in many advanced cases of mental disease. The second fact is the actual cure of the prolonged mental enfeeblement of myxœdematous insanity by the thyroid treatment.

The following is a note of the appearances as seen by Dr. Middlemass in one of our myxœdematous cases:—

The fresh method of examination was adopted in the cortex in one of the cases who died. The patient was 60 years of age, had been myxœdematous for about five years, and insane for more than three years. "There was slight thickening of the pia mater and increase in the number of spider cells in the superficial layer of the cortex. The nerve cells showed decided pigmentary change. The most characteristic appearance, however, was an increased fibrillation of the neuroglia, and in the white matter the small round cells were much more numerous than usual, and here and there these were collected in small groups of three or four or even more. There was also an increase in the nuclei of the walls of the vessels in the white matter which made them stand out very prominently."

The real difficulty in regard to the sections of the cortex in this patient is to distinguish between changes that may be due to senility and those that may be due to the myxœdema. But both Dr. Middlemass and I, after careful examination, have come to the conclusion that the excessive fibrillation of the neuroglia and the marked degeneration of the cells cannot be accounted for by the effects of advanced age alone. If this be so, and if the use of thyroid extract has the effect of clearing up such a diseased condition of the neuroglia, and of reintegrating the normal material of these degenerated cells, then I am convinced that we need not be hopeless of some day discovering remedies that will cure some of our cases of chronic melancholia, chronic mania, and mild dementia, the pathological changes in whose brain cortex I have often seen very similar to those in this myxœdematous patient.

As to the exact pathology of the cortex in myxœdema, and how the changes are caused, and what elements of the cortex are chiefly affected, we are as yet largely ignorant. We know that a wonderfully small amount of a neurine poison circulating in the blood makes all the difference between delirium and sanity, between coma and consciousness. We

have every reason to believe that a very slight pathological change indeed in almost any of the elements of the cortex, whether cellular, fibrous, vascular, lymphatic, or neuroglia, will change the mental condition from that of sanity to insanity. In no other organ or tissue do such slight changes make so great a difference. A constitutional or dynamic change there whose equivalent elsewhere would only cause a moderate pain or a stiffness, may abolish normal consciousness and send the patient to an asylum.

If one might venture a hypothesis, it would be that the neuroglia of the cortex becomes to a slight degree waterlogged by mucin, which causes lowered anabolism and katabolism of the cells, whose reactivity is thereby impaired. An early stage of the process is sometimes characterised by irritability, and the later stages by torpidity of reaction.

No theory of explanation of how myxœdema affects the mental action of the brain cortex can be complete that does not take account of the marvellous acceleration of mental and trophic development that takes place in certain cases of cretinism under the use of thyroid extract, but as I have had no sufficient personal experience of such cases I have refrained from referring to them.

On Melancholia: An Analysis of 730 Consecutive Cases. By W. F. FARQUHARSON, M.B., Assistant Medical Superintendent, Counties Asylum, Carlisle.

I proceed at once to the analysis of the cases that have come under treatment in this asylum. The 730 cases under consideration comprise all the cases of melancholia admitted into the Cumberland and Westmorland Asylum during the twenty-seven years from the beginning of 1865 to the beginning of 1892.

Proportion of Cases of Melancholia in the Admissions of the Three Great Classes of Insanity—Mania, Melancholia, and Dementia.—During this period the total admissions, grouped in these three classes, and altogether excluding all cases of

general paralysis, epileptic mania and dementia, and congenital insanity, were as follows :—

Mania	1,930 or 67 per cent.
Melancholia	730 „ 25·3 „
Dementia	221 „ 7·7 „

Total 2,881

With the view of ascertaining whether there is any general rule governing the proportion of mania to melancholia, I have compared, in a similar manner, the admissions for five years (1883-1887) into Garlands Asylum with the admissions during the same time into public asylums situated in various parts of the country, with the following percentage results :—

Name of Asylum.	Mania.	Melancholia.	Dementia.
Cumberland and Westmorland ("Garlands") Asylum	per cent. 61·5	per cent. 29·4	per cent. 9·1
County Asylum, Stafford	53	27·4	19·6
"Three Counties Asylum" (Beds, Herts, and Hunts)	57·8	31	11·2
Joint Counties Asylum, Aber- gavenny	65·6	23·4	11
Leicester and Rutland Asylum...	64·6	27·3	8·1
Royal Edinburgh Asylum*	58	40	2

The same method was also applied to the total admissions into county and borough asylums, registered hospitals, naval and military hospitals, State asylums, and licensed houses, in England and Wales, during the year 1886, as given in the Forty-second Annual Report of the Commissioners in Lunacy, the ascertained proportions being —

Mania.	Melancholia.	Dementia.
54·2 per cent.	27·5 per cent.	18·3 per cent.

* Although statistics calculated from the Annual Reports of the Royal Edinburgh Asylum are quoted above, it is to be noted that they do not permit of a strictly accurate comparison with those of English public asylums, on account of the large number of private patients that asylum receives; this fact may lead to a certain amount of selection of the cases admitted.

The proportion of melancholia in the admissions to Garlands Asylum in the above five years was somewhat higher than it was over the whole period of 27 years, but these calculations clearly show that even when we have to deal with the classification made by different individuals the general results do not vary a great deal, the proportion of melancholia to mania in the admissions being roughly one to two. In this connection it is to be noted that at Garlands Asylum, for nearly the whole of its existence, the classification of the cases has practically all been done by two men, Dr. Clouston and Dr. Campbell, so that there has been uniformity in the methods employed.

There may be special influences at work which tend to cause variations in these proportions. One form of insanity may be more common in some parts of the country than in others; there may be local circumstances which predispose to the production in one district of an unusual amount of melancholia, in another of an excess of the maniacal type of insanity. Again, the proportions in the same district may vary in different years and different periods according to the state of trade, or in consequence of the prevalence of epidemic disease of some kind, or owing to fluctuations in other factors that produce insanity. Melancholia being a disease which is essentially characterized by a lowered activity of the vital powers and a corresponding diminution in the feeling of well-being, any series of events which causes a lowering of the general health of the community will promote an increased production of that disease.

Under this head it is interesting to note the effect of "strikes" on the amount of insanity in a district, and a good instance is afforded by a study of the statistics of the Glamorgan County Asylum. Dr. Yellowlees has pointed out* that coincident with two short "strikes" in the Glamorgan-shire coal and iron trades, the one in the latter half of the year 1871, and the other in the first quarter of the year 1873, there was a sudden fall in the male admissions to half their usual number, while the female admissions showed scarcely any disturbance. The effect of a short "strike" is thus a decreased production of insanity. This is probably mainly due to the diminution of intemperance consequent upon scarcity of money, and partly also to the moral effect of the "strike" on the miners in bracing them up to

* "Insanity and Intemperance," a paper read at the British Medical Association, 1873.

endurance and self-restraint. On the other hand, the effect of a prolonged depression of trade, such as occurred in Glamorganshire in the year 1875, is an increased production of insanity amongst the men, and an excessive proportion of melancholia in the cases sent to the asylum. In a prolonged "strike" or "lock-out," although intemperance is arrested, "there is a feeling of universal gloom and depression in addition to the poverty."* In 1875 not only were the total admissions to the Glamorgan County Asylum in excess of those in the preceding and succeeding years, but they showed a much larger proportion of cases of melancholia. The following table shows the number of admissions in these three years, and the proportions, calculated as before, of the three great classes of insanity in the admissions:—

Year.	Total Admissions.	Mania.	Melancholia.	Dementia.
		per cent.	per cent.	per cent.
1874	141	50·8	27·6	21·6
875	161	47·05	39·7	13·25
1876	148	63·1	31·5	5·4

Another circumstance which may produce an excess of cases of melancholia is the prevalence of some epidemic disease which lowers the general tone of health; of this the best recent example is afforded by the results of influenza. Following upon an attack of influenza there is a period of profound debility and prostration, with languor and inability for bodily or mental exertion, the nervous system being thus reduced to the condition most favourable for the onset of an attack of melancholia. During the epidemics of recent years many cases have been met with in which influenza was followed by some form of mental disease. Althaus† has tabulated statistics of a large number of such cases, which go to prove that psychoses are not only absolutely, but also relatively more frequent after influenza than after other fevers, the most frequent form of post-influenzal insanity being of the melancholic type. In the annual reports of the Royal Edinburgh Asylum for 1890, 1891, and 1892, Dr. Clouston dwells upon the causal effect of influenza

* Dr. Pringle, "Annual Report of Glamorgan County Asylum," 1875.

† "On Psychoses after Influenza," "Journal Ment. Science," April, 1893.

in producing melancholia. In 1890 the proportion of melancholic cases in the admissions to the Royal Edinburgh Asylum was exceptionally high, in fact it exceeded the proportion of cases of mania; and in that year the only unusual factor at work, as far as could be ascertained, was the severe epidemic of influenza that prevailed. To quote Dr. Clouston's words, he "believes the epidemic of influenza of 1889-90 left the European world's nerves and spirits in a far worse state than it found them."*

Relative Frequency of Melancholia in the Two Sexes.—Of the 730 cases of melancholia, 334 were males and 396 females, giving the proportion of 118·5 females to every 100 males in the admissions. Now, although the census returns for the whole of England and Wales show a considerable preponderance of females over males in the general population, yet in the counties of Cumberland and Westmorland, from which the patients admitted into Garlands Asylum are drawn, the males are more nearly equal to the females in number. The following table shows the proportion of females to every 100 males at the last three censuses:—

	1871.	1881.	1891.
England and Wales	105·4	105·7	106·4
Cumberland and Westmorland	100·7	101·7	102·3

The excess of females in the general population of these two counties (though it would, no doubt, be greater at all ages above 15 or 20, *i.e.*, at those ages when insanity is most prone to occur) thus falls far short of the proportion of females in the cases of melancholia admitted to the asylum, so that, in this district at least, the female sex appears to be considerably more liable to attacks of melancholia than the male. To obtain a more accurate result it is necessary to leave out of account relapsed cases, and to compare the numbers of *persons* of each sex admitted; these were 295 men and 358 women, or 121·3 women to every 100 men, thus demonstrating still more clearly the greater liability of women to melancholia. A similar result is obtained by investigating the admissions to Garlands Asylum, during the same period, of cases of mania; the numbers have been

* "Report of Roy. Edin. Asylum," 1890.

males 911, females 1,019, i.e., 111·8 females to every 100 males.

General Results of Treatment.—The following table gives statistics of the general results of treatment in these cases :—

	Males.	Females.	Total.
Total cases of melancholia admitted	384	396	780
Of whom were discharged—			
Recovered {	202 or 60·5 per cent.	221 or 55·8 per cent.	423 or 57·9 per cent.
Relieved {	22 or 6·5 per cent.	34 or 8·6 per cent.	56 or 7·6 per cent.
Unimproved {	13 or 3·8 per cent.	16 or 4·04 per cent.	29 or 3·9 per cent.
Died {	68 or 20·3 per cent.	78 or 19·7 per cent.	146 or 20 per cent.
Remaining under treatment {	29 or 8·6 per cent.	47 or 11·8 per cent.	76 or 10·4 per cent.

Almost 58 per cent. of all the cases of melancholia admitted terminated in recovery, and the proportion of recoveries was considerably (4·7 per cent.) higher amongst the males than amongst the females. The latter fact does not correspond with what has occurred in the general recovery rate in this asylum calculated on the total admissions of all classes of cases during this same period of 27 years; here the higher proportion of recoveries has been on the side of the females, as follows :—

Males.	Females.	Total.
41·3 per cent.	48·2 per cent.	44 per cent.

The recovery rate in the 1,930 cases of mania admitted during the same period was as under :—

Males.	Females.	Total.
53·7 per cent.	54·6 per cent.	54·2 per cent.

The total recovery rate of the cases of mania was thus 3·7 per cent. lower than that of the melancholic cases, and the higher proportion of recoveries was slightly on the side of the females. The explanation of the recovery rate, calculated on the total admissions of all classes of cases, being so much higher in the female than in the male sex, is found in the fact that of the incurable and demented cases

- admitted by far the larger proportion consisted of males, the numbers of such cases being —

Males.	Females.	Total.
488	200	688

Exactly 20 per cent., or one-fifth, of all the cases of melancholia admitted terminated in death; the proportion of deaths was slightly ($\cdot 6$ per cent.) higher amongst the males than amongst the females. The death rate in the cases of mania admitted during the same period was almost identical with the above, being—

Males.	Females.	Total.
19·9 per cent.	19·4 per cent.	19·6 per cent.

Of the total number of cases, 85 (males 35, females 50), were discharged unrecovered, being either sent home to be taken charge of by relatives or transferred to other institutions. This leaves 29 men and 47 women, in all 76 persons, still (*i.e.*, at the end of 1892) under treatment here; of these 45 (18 men and 27 women) are still suffering from melancholia; 18 (7 men and 11 women) are now suffering from mania; and 13 (4 men and 9 women) are now suffering from dementia.

Varieties of Melancholia.—Many clinical varieties of melancholia have been described, but it is impossible to draw any hard and fast line between these, as they merge into each other; the same case may exhibit the features of several of these varieties at different periods of its course. In its simplest form melancholia is characterized by a feeling of mental pain and depression without adequate external cause, but sooner or later in the majority of cases there comes to be more marked perversion of the intellectual faculties with the presence of delusion. The following table shows the proportions of those two classes in the present series of cases:—

	Males.	Females	Total.
Total cases of melancholia	834	396	730
Cases of simple depression without delusion	94	125	219
Cases with delusion	240	271	511

In 30 per cent. of the total number of cases there was simple depression; in the remaining 70 per cent. delusions formed a more or less prominent feature of the case. Most cases of melancholia begin with simple depression, but generally the individual's gloomy and tortured state of mind gradually gives a morbid colouring to external events, and false views and opinions spring up as to the designs and motives of everyone around. The delusions held by the melancholic patients under treatment in this asylum have been of infinite variety; very frequently they have been those of suspicion and persecution, or of unseen agency; in other cases they have been of a religious type, the patient asserting that he has committed the unpardonable sin, or that he is eternally lost; in many instances the delusions have been hypochondriacal in character. Associated with other delusions, there have been in many cases hallucinations, chiefly of hearing, sometimes of sight, and more rarely of taste and smell.

Comparing now the results of treatment in the simple and in the delusional cases, the following table gives the statistics of the two varieties:—

	Simple Depression.	Depression with Delusion.
Total number of cases ...	219	511
Discharged recovered ...	131 or 59·8 per cent.	292 or 57·1 per cent.
Discharged relieved or } unimproved ... }	21 or 9·5 per cent.	64 or 12·5 per cent.
Still under treatment ...	19 or 8·6 per cent.	57 or 11·1 per cent.
Died	48 or 21·9 per cent.	98 or 19·1 per cent.

The recovery rate was almost three per cent. higher in the simple than in the delusional cases. Of course many slight cases of melancholia, in which there is merely some undue depression, are never sent to an asylum at all, so that there is really a much greater chance of recovery in the simple than in the delusional cases. The death rate was actually 2·8 per cent. higher in the simple as compared with the delusional cases, but the proportion of cases still under

treatment and of those discharged relieved or unimproved (and in whom the chance of ultimate recovery was considerably smaller than in the general run of cases) was a good deal higher in the delusional class, and these facts have to be taken into account in comparing the results of the two varieties of cases.

Suicidal Impulse.—One of the most terrible features of melancholia is the frequency with which it is associated with the impulse to self-destruction. This is present in the majority of cases; even in apparently slight cases of melancholia attempts at suicide may be made. The following table shows the frequency of the suicidal impulse in the Garlands cases:—

	Males.	Females.	Total.
Total cases of melancholia...	334	396	730
Cases in which suicide was } merely threatened ... }	112 or 33·5 per cent.	121 or 30·5 per cent.	233 or 31·9 per cent.
Cases in which suicide was } attempted ... }	126 or 37·7 per cent.	118 or 29·8 per cent.	244 or 33·4 per cent.
Total suicidal cases ... }	238 or 71·2 per cent.	239 or 60·3 per cent.	477 or 65·3 per cent.

In over 65 per cent. of all the cases there existed the impulse to self-destruction, and in more than half of those who had this desire one or more attempts at suicide were actually made. The suicidal impulse is shown above to have been proportionately much more frequent amongst the males than amongst the females; a similar rule holds still more markedly with regard to suicides in the general population, Morselli stating* that "in every country the proportion of suicides is one woman to three or four men."

Co-existence of Physical Disease with Melancholia.—In the great majority of cases the mental phenomena of melancholia are associated with a lowered condition of the general health, but in a smaller proportion of cases there is as a

* "Suicide," by H. Morselli, M.D., p. 189.

concomitant some distinct organic disease. The number of such cases here has been as follows :—

	Males.	Females.	Total.
Total cases of melancholia...	334	396	730
Cases with marked physical disease accompanying the melancholia ... }	99 or 29·6 per cent.	111 or 28·03 per cent.	210 or 28·7 per cent.

The form of physical disease that was most frequently associated with melancholia was phthisis, which was present in 70 cases (males 34, females 36) ; next in frequency was heart disease, present in 57 cases (males 30, females 27) ; cancer was present in 10 cases, four men and six women being afflicted with that disease ; in none of those 10 cases was the melancholia recovered from, all the patients died in the asylum.

Causes of Death in the Cases of Melancholia.—Of the 146 deaths 47 were due to cerebral and spinal diseases, 61 to thoracic diseases, 17 to abdominal diseases, and 21 to general and various diseases. The most common cause of death has been phthisis pulmonalis, which was the assigned cause in 33 cases (22·6 per cent. of the total deaths). As already noted, melancholia is frequently co-existent with phthisis ; the impoverished state of the blood in phthisical individuals leads to imperfect nutrition of the cerebral convolutions, and this often manifests itself by abnormal mentalization ; the majority of the cases of melancholia, which were associated with phthisis, were characterized by morbid feelings of suspicion, with delusions of persecution. Next in frequency as the cause of death was exhaustion from melancholia ; in 24 cases the patients apparently died of sheer exhaustion from the prolonged or severe mental disease, post-mortem examination revealing no localized organic disease anywhere, but all the organs participating in a condition of general malnutrition. In two other cases dying of exhaustion, gangrene of the lungs set in before death and accelerated the fatal issue. Heart disease was certified as the cause of death in 15 cases, and in five more it was associated as a cause with some other disease. In 12 cases the cause of death was exhaustion from

old age, without any organic changes beyond those of senile decay. Cancer alone, or in combination with other diseases, accounted for 10 deaths. In eight cases the immediate cause of death was pneumonia. The majority of the remaining deaths were due to some variety of disease of the brain, and a smaller proportion were caused by abdominal disease. Six deaths were the result of suicide; cut-throat was the method employed in three cases; in one of these cases the patient had cut his throat before admission to the asylum; one patient hanged himself, one was killed by jumping from a lofty window in an attempt to escape, and one patient, while out on trial for a month, had a relapse and committed suicide on the railway.

(To be continued).

Hemp Drugs and Insanity. By Surgeon-Captain J. H. TULL WALSH, I.M.S., Superintendent of Lunatic Asylums, Calcutta.

After reading the somewhat meagre discussion which followed the reading of Dr. Thomas Ireland's very interesting paper before the Section of Psychology at the 61st Annual Meeting of the British Medical Association,* it occurred to me that your readers might take some interest in a paper on the connection between hemp drugs and insanity in Bengal. The Hemp Drugs Commission is now sitting, and my paper will consist mainly of the evidence already given to me, in the shape of a report, to that Committee. To avoid unnecessary prolixity, I will first of all refer your readers to an excellent report by Surgeon-Captain David Prain, I.M.S.,† which was published a short time ago by the Bengal Government. This report deals fully with the botanical and economic side of the question, and gives also a good *résumé* of the chemistry of *cannabis sativa*.

It is not possible to tell from the symptoms presented by the patients admitted into our asylums whether the insanity or intoxication has been caused by *bhāng*, *gānja*, *chunus*, or *majune*, and I have never been able to obtain subjects for comparative experiments. I could not get anyone to undergo a course of *gānja* smoking, but I administered large doses of

* "Brit. Medical Journal," Sept. 16th, 1893.

† "Report on the Cultivation and Use of *Gānja*," Bengal Secretariat Press, 1893.

bhang to two men (who gave their consent), with the following results :—

1. G. R. Between 12 a.m. on the 19th May, 1893, and 3 p.m. on the 20th May, this man (a Hindu) took 3vii. of *bhang*. On the 19th no change was observed until 6 p.m., when he said he felt a little intoxicated, but no signs of excitement were visible. He slept well that night. At 7 a.m. the hospital assistant noted that there was slight excitement, and that the man's eyes were red and congested, pupils dilated, walking about his room and laughing without any apparent reason. At 8 a.m. I saw him, and wrote: "He has dilated pupils and is very happy; not much excited; slept last night. His appearance has changed from his sane state, and he speaks 'thickly.'" This man was never violent, but at 4 p.m. on the 20th complained of headache, and refused to take any more *bhang*.

2. R. G. (Hindu). During the same time as in Case 1 he took also 3vii. of *bhang*. There was slight intoxication, but no signs of excitement; indeed, he was rather drowsy. He declined to continue the experiment, as he felt giddy and intoxicated.

These experiments are not very satisfactory, but they bear out those of other observers to a certain extent. Prisoners under sentence of death might, I think, be used to prove or disprove the question as to the amount of insanity that can be produced by abuse of unadulterated preparations of *cannabis sativa*.

Experiments with the preparations of *cannabis sativa* were carried out by Dr. O'Shaughnessy,* which gave results generally accepted as being those one has learnt to expect from those drugs. The hospital assistant attached to the Native Lunatic Asylum informs me that it is generally thought that *bhang* drinking produces excitement and possibly a maniacal condition, while the action of *gánja* when smoked is slower, and probably takes a long time to affect the intellect, producing then a stupid or melancholic condition. This opinion, however, requires confirmation. The effect produced by *bhang* is, it would appear, very like that produced by alcohol when taken in large quantities; it produces an intoxication more marked, but more transient than does *gánja*, which is smoked. It must be remembered that these remarks apply either to beginners or habitual consumers who have exceeded their usual allowance. *Bhang* is rarely, if ever, smoked, and is generally taken mixed with water and sweetened. It is possible that *datura* is sometimes added to increase the

* Bengal Dispensatory.

intoxicating effect, and to render the subsequent stupidity more prolonged. With regard to *gánja*, I am of opinion that it is most frequently smoked with an admixture of tobacco, and it is then probable that the exciting effects of the one are modified by the narcotic properties of the other. It is a well-known fact, and one to which I shall have to allude again, that *datura* seeds are often added to *gánja* to increase the stupefying effect. The addition, however, is not usual among ordinary *gánja* smokers who use the drug as a stimulant to produce a mild and exhilarating intoxication. It is confined principally to debauched faquires, into whose morals it is needless to inquire, and to gangs of thieves who rob their victims after stupefying them with *datura*, introduced into a *chilum* (pipe) supposed to contain *gánja* only. Of the truth of this statement the daily papers and police records of India afford numerous instances. Judging from the effects of even large doses of the tincture of *cannabis (sativa) indica* used in medical practice for various complaints, it would seem that a moderate use of hemp drugs may be beneficial under certain conditions; at any rate, such moderate use cannot be harmful. By moderate use I mean used only occasionally, short of intoxication. The post-mortem records of the few cases of supposed *toxic insanity* to be found in asylum records do not show that even the abuse of these drugs is followed by any coarse structural changes, either in the brain or in any of the other organs.

Here, again, I must use as a comparison the action of alcohol. Delirium tremens, which may be called the acute insanity of alcohol, does not occur to the moderate user of that liquid; but when the amount consumed is always sufficient to produce intoxication or a condition verging on intoxication, and the act of consumption is regular and habitual, delirium tremens or chronic alcoholism may be produced, or a fit of alcoholic insanity may ensue. I do not here allude to dipsomania. In a similar manner it is, I consider, probable that excessive use or continued abuse of hemp drugs may produce violent intoxication, transient attacks of mania and melancholia, or a condition of dementia. Recovery is in such cases generally rapid when the patient is deprived of the opportunity of obtaining hemp drugs. For the purpose of this inquiry I have examined the annual reports of all the lunatic asylums in Bengal from 1862 up to the end of 1892, and I think it will not be out of place to give a few of the many interesting

extracts I have made from the opinions held by the various medical men who have written on the connection between hemp drugs and insanity during a period of thirty years. I have occasionally added a remark in the form of a note to these extracts, and I have numbered them in order the more easily to refer to them in the subsequent portion of my paper.

1. "Of the 296 cases of insanity treated during the year the apparent and assigned causes have been given in Statement No. 10. It is not easy to ascertain accurately the cause in many cases; the statement must, therefore, be taken as an approximation. In many of the cases where the causes are entered as unknown, *gánja* or some form of intemperance may be suspected." (Dr. A. Simpson, "Annual Report Dacca Lunatic Asylum for 1862.")

2. "The causes of insanity among the patients admitted to the asylum are given in the annexed table; but on this head I regret to observe that the information furnished by Magistrates, as given in the rolls accompanying lunatics, is of the most meagre description, 'cause unknown' being stated in 69 per cent. of the admissions.

CASES OF INSANITY.

Smoking <i>gánja</i> and the use of intoxicating drugs	...	12
Grief from loss of a child	... ..	1
Hereditary	... ..	3
Sequelæ of fever...	... ..	1
Unknown...	... ..	38
Total...		55

(A. Fleming, M.D., "Annual Report Moorshedabad Lunatic Asylum, 1862.")

3. "Of the 416 cases in which the causes of insanity have been ascertained, the disease is attributed to indulgence in intoxicating drugs and liquor in 313 persons, or, as in 1862, to upwards of 75 per cent. The malady was hereditary in 24 instances, and was excited by moral causes—principally grief on account of loss of relatives or property—in 63." ("Annual Report on Lunatic Asylums, Bengal, 1863," by J. McClelland, Esq., Officiating Principal Inspector General Medical Department.)

4. "The chief physical cause has been indulgence in *gánja*; 165, or 50 per cent. of the total number treated, have been distinctly traced to that cause, 16 have been traced to hereditary tendency, eight to opium, seven to epilepsy, and five to ardent spirits." (A. Simpson, M.D., "Annual Report Dacca Lunatic Asylum for 1863.")

5. "The chief physical cause has been indulgence in *gánja*; 173, or 49 per cent. of the total number treated, have been distinctly

traced to that cause, 17 have been traced to hereditary tendency, five to opium, seven to epilepsy, and three to ardent spirits." (W. B. Beatson, M.D., "Annual Report Dacca Lunatic Asylum for 1864.")

6. "Regarding the causes of insanity, *gánja* and dissipation have been by far the most fertile causes among those admitted here, no less than 40 per cent. occurring from them alone. These two causes almost invariably accompany each other." (J. M. Coates, M.D., "Annual Report Cuttack Lunatic Asylum for 1864.")

7. "And so I am of opinion that real, spontaneously produced mania is rare in our asylums, and the hereditary form still more so. Exciting causes (some not to be met with at home) are ready at hand, and to them we must attribute the vast majority of cases, and to simply withholding them, the great majority of cures. Thus, I find in my predecessor's returns that out of 172 cases under treatment in 1864, 101 were attributed to the use of *gánja*, *bhang*, opium, and spirits, and that out of 48 cures, 39 belonged to the above class. My returns prove the same fact; out of 190 cases treated in 1865, 99 were attributed to intoxicating drugs, and out of 75 new admissions 44 were due to the same causes. In each case the percentage is very large. Lastly, out of 363 new admissions in all the asylums in Bengal, 329 were attributed to indulgence in *gánja*, *bhang*, opium, or spirit, i.e., 90·6 per cent. of all the cases. If these exciting causes were checked or removed the asylums would speedily be depopulated." (Robert F. Hutchinson, M.D., "Annual Report Patna Lunatic Asylum for 1865.")

8. "*Gánja* still continues to appear as the fruitful cause of insanity in nearly four-fifths of the cases where the cause is known. Orders have recently been issued, which, it is hoped, will tend to procure a better history of the antecedents of lunatics." ("Government Resolution, 1866," signed A. Eden, Secretary Government Bengal.)

This wish, expressed in 1866, has not been fulfilled even at the present time.

9. "The abuse of intoxicating drugs, especially *gánja*, is answerable for 46·5 per cent. of the admissions; amongst the rest three were unknown, three were attributed to starvation, the rest being due to moral causes, such as grief, anger, fright, and religious excitement.

"I fully believe that the excessive use of *gánja* or spirits may lead to insanity, but I am not prepared to give my adhesion to the opinion that the moderate use of opium has any evil effect on the brain. I believe its action to have a directly opposite effect, for whilst other stimulants deaden the intellectual faculties and excite the passions, opium calms the passions, and healthily exalts the intellectual and moral faculties.

“Readmissions.—There were three readmissions, two of persons discharged cured in 1865, and one who was discharged cured in May, 1856; one of the three was addicted to the excessive use of *gánja*, and another to *muddut* (a preparation of opium). There is no record that the third was addicted to the use of any intoxicating drug.” (N. Jackson, M.D., “Annual Report Cuttack Lunatic Asylum for 1866.”)

10. “As in former reports, the largest proportion is ascribed to indulgence in *gánja*. The ratio from this cause in the last five years has been as follows:—

In 1863	30·5
1864	49·0
1865	46·8
1866	38·9
1867	35·7

Average			40·1
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“Indulgence in *gánja*, however, is always associated with other vices, such as spirit drinking and debauchery. The outbreak of mental disease cannot, except in a few cases, be referred to this narcotic (*sic*) alone. The return is more correctly a record of the number of *gánja* smokers among the lunatics.

“Statement No. 6 shows the trades or occupations of those admitted during 1867. The largest number was furnished by those who engaged in domestic service, including those employed under European and native masters. Twenty-one, or 27·2 per cent., were servants. In former years this proportion was only 8 per cent. This rise is due to the irregular habits and debauched lives led by Mahomedan servants, more especially by those serving in large towns. A second cause is the shameful practice, followed by rich natives, of keeping a servant, generally a boy, who is forced to intoxicate himself and perform indecent dances, not as a warning to others, like the helot of old, but as an entertainment for his master and his companions. One of these miserable creatures was admitted during the year.” (James Wise, M.D., “Annual Report Dacca Lunatic Asylum for 1867.”)

11. “The excessive use of intoxicating drugs, *gánja* especially, has contributed 22 cases, or 44·9 per cent. of the number treated. Of the narcotics (*sic*) used, *datura* has on two occasions been noted among the exciting causes. I allude particularly to this drug in connection with the case of Bunkall, who was admitted in August under the following circumstances:—

“He had been an inspector in the Irrigation Works six years, always bore a good and upright character, and had given uniform satisfaction, so much so that when one of the executive engineers was absent on sick leave Bunkall was placed in charge of extensive and very important works; previous to this he was already

doing the work of another subordinate, so that at one time he was doing the work of three men. Mr. Bunkall's previous health had never been good. He was subject to spasmodic asthma; during the damp weather it was so bad that his medical attendant recommended him to live two miles away from his works, and among other remedies ordered the *datura* to be smoked. Bunkall derived so much benefit from this that he resorted to it on every occasion he was distressed. Tobacco was also freely used, but never with the *datura*. The leaves of the plant were chiefly employed. For six months he continued in this habit, on some occasions smoking two or three pipes a day; about this time he was heard to complain of pain and pressure on the head. Here there were two exciting causes: excessive mental and bodily occupation, and, secondly, *datura* smoking. The difficulties of the case were, that when relieved of some of his work on giving over charge, he suddenly burst into a fit of craziness, and declared he was poisoned and surrounded by conspirators. For the first two months of his stay in the asylum he lost greatly in flesh, and was violently maniacal; official visitors and others who had seen him on these occasions were struck with the change in his condition, and had no doubt of his insanity. For some days he was so morose that he refused all food, and had to be fed by the stomach-pump. He slowly improved, but had two or three relapses. Since then he has steadily recovered, but not sufficiently to justify his discharge. Orders have been received to transfer him to Bhawanipore, where he can be better treated than in an asylum in which no provision is yet made for European cases."

This patient was admitted into the Bhawanipore Asylum on the 22nd January, 1868.

"January 25th.—Appears perfectly intelligent and rational still, and his religious views seem to have less possession of him; employs himself painting."

Left the asylum quite sane on the 14th March, 1868.

"We are aware of the powerfully deleterious effects of all parts of the *datura* (*alba* and *fastuosa*) when swallowed. The narcotic irritant effects of the seeds especially have for a long time been the subject of study in Indian jurisprudence. But whether the habit of smoking parts of the plant, so highly recommended in bronchial complaints, has a further action in disturbing the mind and predisposing to lunacy is perhaps not so generally acknowledged. Natives believe firmly in its action in this respect. The question is an interesting one, and worthy of further investigation." (W. D. Stewart, "Annual Report Cuttack Lunatic Asylum for 1867.")

12. "The readmissions were less numerous than usual. During the previous five years they averaged 17 annually.

"Of the readmissions, one, a *gánja* seller, came in for the seventh time. He was a thin, spare man, aged about 60 years, with a fair amount of intelligence and energy. Six were readmitted within one year of their discharge, two within two years, two after four years, one after seven years, and one after eight years. Of these 13 persons six were addicted to *gánja*, four to *gánja* and spirits, two to spirits alone, and the habits of one could not be ascertained." (James Wise, M.D., "Annual Report Dacca Lunatic Asylum for 1868.")

"Seeing that so many of the cases admitted into our asylums result from over-indulgence in *gánja* or *bhang*, and are not really cases of insanity, I find some difficulty in classing them, and accordingly venture to suggest that all such cases be included under the head of *cannabism*; they are easy of recognition, and the following characteristics will assist in determining them:—In a recent case the conjunctivæ are congested, the pupils generally contracted, (?) and the countenance wears a peculiar leery look, which, when once seen, is unmistakable. The pulse may, or may not, be accelerated, and there is a marked unsteadiness in the gait; great volubility or continued indulgence in laughter or song. If the muscular system is greatly excited, there is a tendency even to rush wildly onwards in a straight line unmindful of intervening obstacles, and consequently severe bruises, especially about the shins, are often met with. These are indications to be met with in a novice, and I cannot find that there are any unpleasant after-consequences in coming out of the debauch, which, on the whole, seems to be a happy and merry state of intoxication. One woman, describing her sensations, said that she felt as if her spirit wished to pass upwards through the skull, and that her body longed to mount upwards as well."

It is extremely rare to find a woman addicted to the use of hemp drugs.

"*Bhang* drinking, as opposed to *gánja* smoking, seems to induce pleasant reveries, like those produced by morphia when the tendency to sleep is resisted. It is enormously indulged in, far more so than *gánja*, but easily overlooked owing to the absence of excitement. In the confirmed *gánja* smoker there is greater stupidity and less excitement, a kind of maudlin intoxication with conjunctivæ markedly red. Two tests at once betray the habitué; by frequently rubbing up the *gánja* and tobacco in the left palm with the right thumb a corn is produced on the outside of the last phalanx, and if you place before him a *chilum* said to be charged with *gánja* he will inhale the smoke with one long prolonged whiff, which would at once bring on coughing in the non-initiated. A confirmed *gánja* smoker has frequently dark, purple lips, but the corn and inhalation will always reveal him." (R. F. Hutchinson, M.D., "Annual Report Patna Lunatic Asylum for 1868.")

This is a particularly interesting note, and the name *cannabism* would do very well for the cases of intoxication occurring after the excessive use of hemp drugs, either alone or, as is frequently the case, with small quantities (2-3 seeds) of *datura*. It would represent a condition which, when occurring in spirit-drinkers, is called *alcoholism*. The *ganja* smoker, no doubt, produces a corn on the right thumb, but the same corn occurs on the thumb of a man who only smokes tobacco. From my own observation, I think, too, that the long *inhalation* is only taken after a few short and sharp pulls have got the *chilum* well started.

14. "I have a few words to say regarding criminal lunatics. There has been an increase of late in the number of this class of the insane, and it has appeared to me, judging from their demeanour here (many of them), that it would be as well for those whose duty it is to pronounce on the sanity of these individuals to recollect (medical officers, juries, and judicial officers) that cerebral excitement resulting from the abuse of intoxicating liquors and drugs is not insanity. If an Englishman gets drunk, and in that state commits a criminal act, he is held responsible for it; and if he has committed murder in his state of excitement he is hung. But a native of India indulges in an intoxicating drug which he knows will produce maniacal excitement, and he escapes all future punishment (except confinement in a lunatic asylum) on the ground of insanity. The drunken native is no more mad than the drunken Englishman; why, then, this difference in the punishment awarded? I think I could point out several (so-called) criminal lunatics at Dallanda who have never shown any signs of insanity, and who have never been insane, though they have suffered from the stimulating and destructive effects of *bharg*, *churru*, or other intoxicating agent." (G. Saunders, Deputy Inspector-General, Bengal, "Inspection Report Dallanda Asylum, 1870.")

I entirely agree with the general opinion expressed in this extract, and I fail to see why intoxication from hemp drugs is not punished. When a native has willingly indulged in intoxicating drugs, and in his intoxication commits any crime, "he shall be liable to be dealt with as if he had the same knowledge as he would have had if he had not been intoxicated" (Indian Penal Code, Section 86). Further, if in these cases proper attention were paid to Section 510 of the Indian Penal Code, a large number of persons said to be intoxicated with hemp drugs, and accused of "mischief," "theft," "simple assault," "trespass," or "larking house trespass, etc."! would be summarily dealt with instead of

being confined in an asylum at the expense of Government, *i.e.*, the taxpayers.

15. "Table No. 4 shows the attributed causes of mental diseases. Of 312 patients, no less than 123 are alleged to have become insane from *gánja* smoking and drinking. Of these, some have been discharged cured, and many more are now nearly well, and will soon be turned out to resume their vicious habits. It is much to be regretted that so large a number of dissipated and miserably debauched creatures should annually be able to escape all punishment, and become, as lunatics, burdens on the State. Whenever it is possible, the cost of their maintenance is recovered from them or their friends, but justice seems to demand something more than this, even though the difficulties of the law may stand in the way." (H. C. Cutcliffe, F.R.C.S., "Annual Report Dacca Lunatic Asylum for 1869.")

16. "The statement of readmissions has little or no technical interest. In many of them recurrent insanity means only repeated intoxication. In others, readmission means the return of an acquitted criminal who had been discharged to take his trial, and whose proper place would be among the cured, and a third group is composed of persons removed by relatives and brought back from difficulty or expense in managing them at home. This is an illustration of the manner in which, with a population composed of classes which have little or nothing in common, figured totals and mean numbers designed to represent collections of simple and similar facts in the life of each may become mere heterogeneous aggregates of dissimilar units." (A. J. Payne, M.D., "Annual Report Dallanda Lunatic Asylum for 1871.")

17. "The case returned under this head (Acute Dementia) was a domestic who had smoked *gánja* to such excess that reason disappeared and left him a mere animal in his habits. He, however, made a rapid and satisfactory recovery. Under the head of *gánja* the largest number are, as usual, included. The ratio this year is less than formerly. An endeavour has been made to distinguish between the occasional consumer and the habitual smoker. The former cannot properly be classified in the same list with the latter, yet in this asylum it has been the practice to do so. The *gánja* smoker who really appreciates its value never becomes a spirit-drinker. Spirituous liquors do not produce the sensual intoxication he desires, and the after-effects are not pleasurable." (James Wise, M.D., "Annual Report Dacca Lunatic Asylum for 1871.")

18. "Fifty per cent. of the insanes are set down as 'cause unknown.' This is rather opprobrious, due doubtless to the cause at the time of admission being undiscoverable, or rather to its being left to those whose report obtains the magistrate's order to transfer the patient to an asylum." (J. Coates, M.D., "Annual Report Moydapore Lunatic Asylum for 1871.")

19. "The number of cases attributed to *gánja* is 169 out of 230 admissions in which a cause was known, but it may be that it has become a habit to attribute insanity to *gánja*. The Lieutenant-Governor would be glad to have it specially noted in the reports if there are generally good grounds for setting down this drug as the cause in so many cases. The reasons for the belief should, if possible, be stated." ("Government Resolution on Asylum Reports, 1871, Bengal." Signed, A. Mackenzie.)

20. "A true knowledge of the causation of insanity can only be obtained from a very careful investigation of particular cases and their antecedents, and an extensive knowledge of the social peculiarities and practices of individuals and communities. Observations, such as Drs. Wise and Coates have recorded, contribute more to the elucidation of the causes of insanity than any number of 'tables,' which have an appearance of precision, but are really most inaccurate and unworthy of trust. Statement No. 10 shows the usual large proportion of cases attributed to the use of *gánja* and spirits. The remarks of Drs. Coates and Wise would go to show that Indian hemp is in many cases erroneously credited with madness otherwise caused. It would also appear that this drug has little or no influence as an incentive to crime, and the figures given in Statement No. 10 show that the proportion of *gánja*-caused insanity among criminal is less than among non-criminal lunatics. No doubt, as Dr. Wise states, thieves and murderers smoke hemp in order to nerve themselves to criminal deeds previously resolved on, but the drug does not appear specially to arouse any homicidal or criminal propensities." (J. Campbell Brown, Inspector-General of Hospitals, Bengal, "Annual Report on Asylums, 1872.")

Many acts of violence committed by persons intoxicated either with *bhang* or *gánja* represent merely the uncontrolled action of the animal passions. The controlling power of the higher nervous centres once removed by hemp drugs, alcohol, or anything else, the individual will either become quarrelsome and violent or melancholic and maudlin. There is not, in my opinion, any *specific* property in hemp drugs which incites to violence or crime.

At the discussion which followed the reading of Dr. Thomas Ireland's paper, Dr. Hack Tuke asked whether running amok could be traced to the use of Indian hemp. Running amok is not common in Bengal, and where it occurs there is nothing to show that it is in any way connected with the use of Indian hemp drugs. It is evident also that Dr. W. Gilmore Ellis* does not consider the amok of the Malays to be caused by abuse of preparations of Indian hemp.

* "The Amok of the Malays," by W. Gilmore Ellis, M.D., M.R.C.S., Medical Superintendent, Government Asylum, Singapore. "The Journal of Mental Science," July, 1893.

21. "Although a cause has been assigned in all but 20·6 per cent. of the cases, it is impossible to place much reliance on the correctness of the statements sent in by the police, for it is to them we have to trust for obtaining the little information we possess. . . .

"An attempt has been made this year to distinguish between those cases of insanity clearly due to *gánja* smoking and those in which the use of *gánja* has only been occasional, and, therefore, insufficient to excite insanity. The attempt has not been successful. For want of any other reason, it has been necessary to enter under the heading *gánja* several who were merely reported to have indulged in its use. In 1871 there were returned 37·2 per cent. of the total treated under the head of *gánja*. In 1872 the proportion was 31·60, namely 28·26 males and 3·34 females.

"I believe that *gánja* is less deleterious than is generally supposed, and that insanity is comparatively as rare among the *gánja* smokers as among persons who take a daily allowance of spirits. Like drunkenness, *gánja* produces physical as well as psychical effects. By causing irritation, and probably changes in the nutrition of the brain, it gradually undermines the constitution. Its effects on the digestive organs, however, are less perceptibly injurious than are spirits. By exciting the emotions it enfeebles the mind, and by the loss of self-respect it incapacitates the individual from discharging his usual avocations. Poverty and all the anxieties which accompany an irregular life oblige him to drown care in deeper intoxication, which sooner or later ends in madness.

"Among those classes of natives who spend most of their time in smoking the weed madness is exceedingly rare. With them *gánja* smoking is an incentive to religious abstraction, and its unlimited use is a sure sign of religious sincerity.

"The Ramawats, who are the greatest smokers in Eastern Bengal, seldom, if ever, become mad. They, as well as other natives who exceed in smoking *gánja*, invariably live very well, and they maintain that as long as plenty of food is taken its effects are innocuous.

"The diet of a Ramawat usually consists of milk, two seers (4lbs.), ata (1½lbs.), ghee (4oz.), and vegetables and fruit *ad libitum*. During the last six years none of these luxurious mendicants have been admitted into the asylum, although they are very numerous in the city of Dacca.

"An excessive indulgence in *gánja* by those unaccustomed to its use will generally be followed by insanity; but like dram drinking, as long as the digestion remains good it may be taken daily, in gradually increasing doses, without much injurious effect.

"A person who indulges in *gánja*, unless he be a religious mendicant, is stigmatized as a reprobate. The vice grows upon him; he neglects his family and his business, falls into irregular

and disorderly habits, which alternate with periods of self-reproach and mental depression.

"It is from among the labouring classes that the lunatic, mad from the effects of *gánja*, comes.

"Of the 93 lunatics treated during 1872, and whose insanity was referred to *gánja*, 67, or 72 per cent., were Hindoos, 25 Mahommedans, and one was a native Christian.

"Sixteen of the 25 Mahommedans came from Dacca or its neighbourhood.

"I do not believe that *gánja* smoking is an incentive to crime. In the records of this asylum there is no mention of any crime having been committed while the individual was under the influence of hemp.

"In a special report forwarded to Government in December, 1871, it was shown that, of 99 criminal lunatics admitted between 1861 and 1870 39 had, their madness referred to *gánja* smoking; but that in no instance was it alleged that the crime was committed while the individual was under the effect of *gánja*.

"During the past year four criminal lunatics were admitted whose insanity was referred to *gánja* smoking. They were all Hindoos. One was charged with rape, one with theft, one with murder, and one with grievous hurt.

"That many *gánja* smokers become criminals is not to be wondered at.

"Few, if any, Dacoits are to be found who do not make use of the weed to inspire them with false courage, but it is because they are thieves that they do so, and not because being smokers of *gánja* they are thieves. The history of the use of hemp corroborates this. It has invariably been used to nerve a man to perpetrate a deed which he has already resolved on doing, and, as the Ramawats hold, to impress on the memory a train of thought that has already been pondered over." (James Wise, M.D., "Annual Report Dacan Lunatic Asylum for 1872.")

The Annual Reports from 1872 to 1888 repeat much the same figures and opinions, and those from 1888 to 1892 give only figures without comment.

From these extracts it will be gathered that for a period of 30 years hemp drugs when abused have always been credited with the power of producing an insanity of various types, generally a transient mania or melancholia, sometimes an acute dementia (Dr. Wise, Ext. 17). The percentage of cases in the Bengal Asylums has varied from 25 to 35 during a period of ten years, agreeing generally with the figures quoted by Dr. Ireland for British Guiana. During the same ten years (1881-1890) the admissions ascribed to abuse of opium were under $\frac{1}{2}$ per cent. !

Before formulating any definite conclusions on the question of the connection between hemp drugs and insanity I would like to point out some of the difficulties under which all superintendents of asylums have worked and still work in this country, and these difficulties are especially present in relation to *ganja-insanity*. The patients belong nearly always to the lower and grossly ignorant classes, to whose minds the relations of *cause* and *effect*, except in very ordinary affairs of life, are, more or less, unknown, and anything which is outside their ken is generally given up as unknowable. When pressed for reasons they give such as are foolish or wilfully untrue. Little then is likely to be obtained in the way of information from the friends, if indeed they are ever questioned at all by the committing magistrate. It is only very rarely in cases of private-paying patients that the superintendent sees the relatives; most cases are brought to the asylum by the police on an order from a magistrate. The lunacy laws in India leave much to be desired. In certainly 50 per cent. of the insanes admitted into asylums as wandering lunatics under Section iv., or at the request of friends, under Section v. of Act xxxvi. of 1858, or as so-called criminal lunatics under the provisions of Act x. of 1882, the descriptive rolls contain no mention of relatives. These descriptive rolls (Forms 3 and 4) are filled up as a rule by a European or native inspector on the information of a native policeman. These men know from experience that unless they make these rolls fairly presentable they will be returned from the asylum to the committing magistrate, and that this officer will in his turn call upon his subordinates for more information, which is, unfortunately, seldom forthcoming. To escape trouble and worry the police are averse to entering the names of relatives (who might be called upon to contribute towards the maintenance of the insane person), and are in the habit of accepting *ganja*, *bang*, etc., as convenient causes of insanity, which have long been permitted to pass as probably correct. The medical officers in charge of asylums have long suspected this to be the case (Ext. 1, 2, 8, 13, 18, 19, 20, 21).

Let it be granted that want of accuracy in ascertaining a cause renders about 50 per cent. of the cases of insanity, said to be due to *ganja*, etc., doubtful; it is not therefore necessary to suppose that these insane never used hemp drugs at all. They may, and probably do, represent persons, insane from other causes, who are known to have used hemp drugs

occasionally, or even habitually. In a certain proportion, too, it is not very improbable that, owing to the fact that these persons are of a neuropathic diathesis, and in them a tendency to insanity exists, and has always been latent, hemp drugs in excess, or even in quantities which would not damage a man of robust nervous constitution, have acted as an *exciting cause*, making manifest a mental weakness which might not have shown itself in the absence of such indulgence. Granting all this, we are still left with a number of cases in which the abuse of Indian hemp drugs, either alone or combined with datura or alcohol, has produced a violent and prolonged intoxication followed by a maniacal, melancholic, or demented condition. In these cases recovery takes place in a very short time; indeed, in many of them the individuals are sane, or almost sane, when they reach the asylum (Ext. 13, 14, 20, etc.). A nominal roll has been prepared in the Dallanda Asylum for the past five years, and from it I find that of the 108 persons admitted, whose insanity is put down to *gánja* or *bhang*, eight are distinctly stated to have been sane on admission to the asylum. All these persons remained sane. There can be no doubt, therefore, that a certain proportion of the cases admitted are not cases of insanity, but, if rightly reported in the first instance, merely cases of intoxication which should never have been sent to an asylum at all. Although, as I have already admitted, in many cases perfect proof that the *toxic insanity* is due to the abuse of hemp drugs is wanting, there is another feature in these cases which points to a causation, which is transient, and from which recovery is rapid. The average period under treatment in the Dallanda Asylum of 55 cases discharged cured during the five years 1888-1892 varied from three to ten months, and many of these were kept under observation for some time after they had been pronounced sane. Of the 108 cases admitted more than half recovered very quickly, and this points to a cause easily removable. These figures include a few readmissions of persons previously treated for insanity due to the abuse of hemp drugs (Ext. 6, 12, 16). With regard to the patients who do not recover I think they probably represent, as pointed out by Dr. Wise (Ext. 10), a number of insane persons who may or may not have used hemp drugs.

In conclusion, I think it may be fairly stated:—

1. That hemp drugs are very largely used in Bengal, smoked as *gánja* and *chunus*; drank as *bhang* and *siddhi*, or

eaten as *májune*. The smoking of *chunus* and the eating of *májune* are not very common.

2. Among healthy persons *gánja* smoked alone, with tobacco, or with a very small addition of *datura* (two or three seeds) produces a condition varying from mild exhilaration to marked intoxication. The violent intoxicating effects are less marked, or not seen at all, in persons having a regular and wholesome supply of food (Ext. 21). Much the same may be said of *bhang*, etc.

3. Among persons of weak mind, or with a marked neurotic tendency, even a moderate quantity, or only a slight excess of hemp drugs, may so increase the insanity, evident or latent, as to make such persons violent, morose, or melancholy, according to the neuropathy with which we start. The presence of adulterations such as *datura* will increase these effects.

4. Abuse of hemp drugs, especially when adulterated with *datura*, will produce even in healthy persons a very violent intoxication simulating mania, or may lead to a morose melancholic condition, or to dementia. These conditions are generally of short duration, and the patient ultimately recovers. So common is absolute recovery that I think when a patient confined in an asylum for the treatment of insanity said to be due to the abuse of hemp drugs does not recover within 10 months these drugs were possibly only the *exciting cause*, and that we are dealing with an individual who was either insane previous to his use of intoxicating drugs, or with one in whom latent insanity has been roused into activity by the vitiating effects of excess of *gánja*, *bhang*, etc.

CLINICAL NOTES AND CASES.

Developmental General Paralysis. By JAMES MIDDLEMASS, M.A., M.B., B.Sc., Assistant Physician, Royal Edinburgh Asylum.*

General paralysis is, without doubt, one of the most interesting as it is one of the commonest of mental diseases. Even by those who are not specialists in that department of medicine, the picture of a typical case of the disease is one which can be brought up with little difficulty. To make up

* Paper read before the Psychology Section of the British Medical Association Meeting at Newcastle.

this picture various factors are necessary, and amongst these the one of age is naturally of some importance. Almost all writers are agreed that the majority of cases occur between the ages of twenty-five and fifty. Many, however, have met with instances in which the disease occurred outside these limits, and lately at Morningside there has been quite a series in which the age of the patients was included in the period of puberty or adolescence. A number of such cases had already been observed and put on record, but it was only in 1890 in the Morison Lectures that Dr. Clouston drew special attention to this particular form and named it "Developmental General Paralysis."* Since that date five additional cases have been admitted, and I propose in this paper to give the clinical history of these and an account of the pathological changes in the case of those in which an examination has been made. It seemed best to keep the two separate, so I shall give first the clinical features of all the cases, and follow with the morbid changes found after death.

The first case, that of Margaret C., was in the asylum twice. On the first occasion she was admitted at the age of 17, but owing to the fact that she had no relatives from whom an exact account of her illness could be got, and because she was stated to have been congenitally weak-minded, she was not then regarded as a case of general paralysis. She was, however, stated to have been insane for at least three years, but nothing could be ascertained about her hereditary history or other matters of importance. When admitted she was undersized, badly developed, and suffered from considerable mental enfeeblement. Her emotional condition was one of mild exaltation. When spoken to she usually smiled foolishly, and if asked how she was, said she felt fine. Her memory was much impaired, and she had no special delusions. Apparently there were no motor symptoms observable, and, owing to the misleading history given, she was, as already stated, regarded as a case of congenital imbecility. During her stay in the asylum she picked up a little. She is noted to have been slow in her movements, weak-minded in behaviour, occasionally quarrelsome and liable to fits of rage or slight excitement, but generally her emotional condition was one of mild happiness. After a residence of sixteen months, she was so far well as to allow of her being transferred to the lunatic wards of the poor-house, where she remained for some months, and was then boarded out in the country.

She was readmitted into the asylum in September, 1891, about

* See "The Neuroses of Development," by T. S. Clouston, M.D., p. 74.

three years after her first discharge. Of her condition during that period almost nothing could be ascertained. She seems to have remained fairly quiet and manageable, but the mental enfeeblement had steadily progressed. She had also become exceedingly weak in body, so that she required to be carried in. She could not stand; there was some paresis of the right side, and she had also considerable difficulty in swallowing. Her mind was almost a complete blank. She seldom spoke, but when she did so her voice was monotonous and tremulous. Tremors were also present in the lips and hands. It will thus be seen that the disease had by that time reached a very advanced stage, and it was not surprising that ten days after admission she died of pneumonia, which attacked an already phthisical lung. Several times during these days, however, it had been remarked how like a general paralytic many of her symptoms were, but the absence of full information and the view taken of her case on her previous admission misled one, and it was only at the post-mortem examination that the brain was discovered to be undoubtedly that of a general paralytic.

The second case is that of Jane F. Part of her history has already been put on record by Dr. Clouston in "The Neuroses of Development,"* but since that was published she has died, and the diagnosis then made has been confirmed by post-mortem examination. The facts already given need not be repeated, but it will be sufficient to say that she was admitted to Morningside at the age of 16, the first symptoms of the disease having been manifested about a year before. On admission she showed great mental enfeeblement, with some delusions of a grandiose character. Weakness of both body and mind progressed steadily and almost uninterruptedly, and she became bedridden. Like the case of A. K., also described by Dr. Clouston,† failure of trophic power was very manifest, and some time before her death she developed gangrene of the extremities of both feet. This slowly spread upwards, and she died of exhaustion sixteen months after admission and about two-and-a-half years from the beginning of the disease.

The next case was that of Marjory C. She was admitted in February, 1892, at the age of 18. As regards her hereditary history, the following facts were obtained:—She was the third of a family of seven. The two eldest are living and healthy. The third was the patient. The fourth was still-born. The fifth is alive and well. The two youngest were twins, and one of them died soon after birth of convulsions. The father denied ever having had syphilis, but he admitted to a pretty regular consumption of spirits, though he said he was seldom drunk. His appearance quite confirmed his confession. The patient's illness was

* *Loc. cit.*, p. 75.

† *Ibid.*, p. 80.

stated by her parents to have commenced four years before, as the result of a fall on the head, which seems to have been rather severe. She fell over a stair the height of one storey, and when picked up she was unconscious and blood was oozing from her left ear. This soon stopped, but shortly after pus formed, and came away at intervals. Three days after the fall, while sitting quietly at the fire, she suddenly became aphasic, and the left side of the face was seen to twitch. She did not lose consciousness, and the attack passed off in ten minutes, when she seemed to be all right again. She remained apparently well for three years subsequently. About a year before she was sent to the asylum it was noticed that her manner and mental capacity were undergoing a gradual change. She became more and more weak-minded, and could not keep her situation as a servant, as she forgot what she was told and did not do her work properly. Also, when walking along the street, she would pick up crumbs of bread and eat them, though she got plenty of food at home, and could give no reason why she did so. About two months before admission, as she was going out to the street, she fell and was picked up unconscious. The fall was not a severe one, and it is improbable that it caused the unconsciousness. More likely both were the result of a congestive attack. She soon recovered consciousness, and it was then noticed that her mouth was drawn to the left side. After that she developed various delusions, one of which was that she was the mother of a large family. She also became suspicious of her relatives.

When she was admitted into the asylum the disease had evidently reached a pretty advanced stage. She walked with considerable difficulty, and her gait was very unsteady, and altogether her muscular power was very much impaired. Mentally she was markedly deficient. She seldom spoke, and only at times did she seem to comprehend even simple questions. Her memory was not very good, especially for recent events, but she could repeat the simpler parts of the multiplication table with a fair degree of accuracy. Emotionally she was rather depressed than exalted, but this was inferred more from her expression of face than from anything she said. As regards motor symptoms these were also very pronounced. Her tongue and lips had the characteristic tremors, and her voice was quavering. Her pupils were unequal and did not react well to light, and hardly at all to accommodation. Her knee-jerks and superficial reflexes were very slightly increased. In her general appearance she was undersized and undeveloped, and she had never menstruated. She presented no very evident marks of hereditary syphilis. Her teeth were suspicious, but so far as could be seen there were no syphilitic retinal changes nor interstitial keratitis. There was, however, slight thickening of the tibiae. The progress of the disease after her admission to the asylum was very rapid. She became more

and more mentally enfeebled, she gradually spoke less, until she ceased to do so altogether, and the muscular weakness got so pronounced that she soon became confined to bed. She lost flesh rapidly in spite of extra feeding, and notwithstanding the most careful nursing she died of exhaustion three months after being admitted.

The next case was that of Martha C., who came to Morningside in October, 1892, at the age of 20. She was the youngest of eight children. The second and third were dead-born at the seventh month. The fourth was born with a deformity of the spine, and died five months after. The fifth was a seventh month child, and lived only two days. The others were at that time living, and except the patient were said to be healthy.

The patient developed normally in body and mind up to the age of 15, five years before her admission to the asylum, but at that time she seems to have come to a standstill; there was no further advance, and before long a decided retrogression became manifest. It appears to have come on gradually without any injury or any violent physical or mental cause. The first symptoms noticed were an alteration in speech, which became thick and slow, and a simultaneous stupidity and want of mental alertness. As in the other cases these mental and motor symptoms slowly grew more pronounced. During these five years she remained at home, and was free from any congestive attack or fit of unconsciousness; she never got excited nor expressed any definite delusions. It was only her increasing weakness of body and mind that necessitated her being sent to the asylum at all.

On admission she was physically fairly well developed, more so indeed than any of the other cases. But it could at once be seen that she was mentally affected. She had generally a blank expression of face, but occasionally it would assume a nervous, frightened look, which is not uncommon in many general paralytics. She was very emotional, laughing or crying on slight provocation. Her memory was much impaired, but she had no grandiose delusions. Motor symptoms were also very evident. Her gait was unsteady, her tongue and lips were tremulous, and her speech was distinctly slurring. The pupils were slightly dilated, the left larger than the right, and both irregular and reacting slowly to light. There was occasional nystagmus, and her knee-jerks were exaggerated. Although she was twenty years old menstruation had never become established. Her chest was deformed, and had a rachitic appearance. Her teeth were decidedly syphilitic, and the angles of the mouth were puckered as if from old ulceration.

Her progress during her residence in the asylum resembled in almost all particulars that of the other cases already described. She became weaker in body, the muscular tremulousness and inco-ordination increased, and before long she had to be kept in

bed. The mental dissolution also advanced steadily, and resulted in almost complete dementia. There was no outstanding event in the course of the illness. She was transferred after a time to Rosewell Asylum, but Dr. Mitchell, the medical superintendent, informs me that there was no change in the character of her symptoms. She died less than six months after being admitted to Morningside, the disease having taken about $5\frac{1}{2}$ years to run its course.

Annie H. was the fifth case. She was admitted on the 27th March last, and she is still in Morningside. She is the youngest of a family of four, which consisted of a girl, who is still alive and well; then there was a miscarriage, then a boy, who is living and healthy, and last of all the patient. She was apparently a normal child up to the age of eight. She had been to school and was getting on well, but at that age a very bad stammer appeared, so bad indeed that she required to be taken from school on account of it. After that she stayed at home and did work about the house, but the stammer got worse. She was never able to do any other work, and when about sixteen years old it was noticed that she was more stupid than she used to be. She forgot things readily, and did not do her work so well. These changes increased gradually, so that she had to be looked after at home more and more. This, latterly, became impossible, and four years ago she had to be sent to the poorhouse, where she remained until she was brought to the asylum. During her stay there her symptoms became gradually more and more marked. She got more stupid and weak-minded, and required nearly constant attention. She never had any attacks of excitement nor any delusions, in fact she spoke less and less, and when she did attempt to do so, the stammer seemed to be worse.

On admission to the asylum she was 23 years of age, and fairly well developed. She had an absence of expression in her face and eyes, and her movements were slow and lethargic. There was considerable difficulty in rousing her attention, as she often seemed to take no note of questions that were asked her, and when she did grasp the fact that an answer was wanted she took a long time to give it. This was partly due to her stammer, but seemed to be quite as much caused by slowness in her mental processes. Occasionally she would smile in a meaningless way, and quite apart from anything that had been said to cause it. What emotional feeling she had, appeared, on the whole, to be pleasurable rather than the reverse. As regards motor symptoms, there was considerable muscular weakness, but there was, in addition, some inco-ordination, and there were slight tremors of her upper lip. Her knee-jerks and other reflexes, both superficial and deep, were much exaggerated. Her pupils were unequal, slightly irregular, and did not react to accommodation. Her speech, as already mentioned, was much impaired, but it was difficult to say whether

there was anything more than a stammer. In her general condition there was nothing of special importance, except the fact that she had menstruated only once or twice when she was about sixteen. Her teeth were not well-shaped, and there was some irregular thickening of the tibial bones, presumably of a syphilitic character.

Since she came to the asylum the patient has lost flesh and strength to a considerable degree, in spite of extra attention. She is now confined to bed, and is very helpless. All the mental and motor symptoms are now more pronounced than ever, and show signs of further advance. On more than one occasion there have been slight rises of temperature with increased mental obscurcation, though it has never reached the stage of unconsciousness. From the absence of other discoverable causes, these were regarded as slight congestive attacks. It may be mentioned that during them there have been no convulsive movements, though she occasionally complains of headache. Even apart from intercurrent troubles which might carry her off, it does not look as if she would live many months more.

The last case is that of Christina T. She was admitted on 1st May of this year, at the age of sixteen. She is the only one of the family living, the two previous children having been stillborn. Her father is at present suffering from locomotor ataxia. As an infant, the patient was weakly, and a blotchy eruption came out on her skin. In course of time this disappeared, and she grew stronger. She has, however, never been robust, and was always small for her age. At school she did moderately well, and passed the standard examinations. After leaving it at the age of thirteen she became a bookfolder, and remained at this for some little time; but latterly it was noticed that she was easily annoyed and irritated, and she then began to have hallucinations of hearing and consequent delusions. A few days before admission she became excited and confused, and she could not answer questions quite coherently. When admitted she was still slightly excited, but the most prominent mental symptom was confusion with loss of memory. There were, besides, pronounced motor symptoms. Her gait was slow and unsteady, and she said she felt weak on her legs. There was a little tremulousness of her tongue and upper lip, and her speech was, to a slight extent, trembling and staccato. Her pupils were irregular and sluggish in their reaction to light. As the first symptoms of brain disease had been present for only a few months there was some hesitation in diagnosing this case as one of developmental general paralysis, but the combination of mental and motor changes, and the general resemblance of the case to those already described, ultimately led us to the conclusion that it was such.

Her history since admission has been comparatively uneventful. The excitement soon completely passed off, her memory improved,

and her bodily health as well. Nevertheless, there still remains a considerable amount of sluggishness in comprehending and answering questions, and the characteristic motor symptoms seen on admission are still quite discernible. The case is an interesting one, and her further progress will naturally be watched with attention.

Such, then, were the clinical features of the six cases which I have endeavoured to present. We shall now turn to the pathological appearances seen on examination of the first four of these.

Margaret C. died in September, 1891. The inner table of the skull was much thickened, and the dura was adherent to it along the line of the coronal suture. The dura was of normal appearance and thickness, and there were about 2oz. of cerebro-spinal fluid. The whole brain weighed only 32½oz., the cerebrum being 25½oz., cerebellum and pons 5½oz., and fluid under the pia and in the ventricles 1½oz. The pia-arachnoid was much thickened, and had a milky appearance. It was more or less adherent to the cortex all over. The brain as a whole was small, and the convolutions, especially those of the frontal lobe, much atrophied. The two hemispheres were strongly adherent to each other. On section the grey matter was seen to be much atrophied, and the different layers usually to be made out were all merged into one another. There were very marked granulations of the lateral and fourth ventricles. Microscopic examination of fresh sections showed the pia mater to be much thickened, being infiltrated with a large number of small cells, and containing numerous pigment granules. In the outer layer of the cortex, as well as in the deepest layer next the white matter, there were a few prominent spider-cells. The nerve-cells almost throughout had undergone granular and pigmentary change. The most apparent character, however, was the large number of nuclei in the adventitial sheath of the vessels. These accordingly stood out prominently. There was a slight increase in the small rounded neuroglia cells, and there were some masses of pigment in the perivascular spaces. These changes were most evident in sections taken from the frontal region, and became less marked as one passed backward. Regarding the other organs, nothing of importance was found except in the uterus and ovaries, which were quite undeveloped and retained their infantile characters.

The second case, Jane F., died in November, 1891. The body was in an extremely emaciated condition, and there was gangrene of both feet. There was nothing abnormal about the skull except an unusual distinctness of the sutures. The dura mater was slightly thickened, and the vessels a little congested and tortuous. On incising the dura there was found to be on the left side a recent hæmorrhagic effusion, irregularly oval in shape, about three inches long and two inches broad from above downwards. In the centre it was about a quarter of an inch in thickness, and consisted of

almost pure blood-clot, covered on the inner surface with a thin transparent membrane. At the margins there was no hæmorrhage, only the colourless membrane. On the right side, in the parietal region, there was a similar thin, colourless, subdural membrane. The encephalon weighed 35oz., the cerebrum being 27oz., the cerebellum, pons, and medulla 5½oz., and there were 2½oz. of fluid. The sulci were very well marked, and there was considerable atrophy, especially of those of the frontal lobes on both sides. The pia-arachnoid was slightly milky, and was adherent over the whole upper surface of the brain, except posteriorly. There was also considerable adhesion between the two hemispheres. On cutting into it the grey matter was found to be pale, soft, and atrophied. The ependyma of the ventricles presented many granulations. On microscopic examination there was found considerable thickening of the pia, with matting of the superficial layer of the cortex. In this position there was a considerable number of spider-cells, but they were faintly stained, and showed signs of fatty degeneration. There were also spider-cells visible in the deepest layer, and these were more deeply stained. The nerve-cells in all the layers showed slight granular degeneration, and nearly all their nuclei showed a less deeply stained point about the centre. The adventitial nuclei of the larger vessels were increased in number, but the smallest capillary loops in many places seemed nearly healthy. In the anterior convolutions these changes were more advanced than elsewhere. As in the other case, the uterus was infantile in size, and the ovaries were small and smooth on the surface.

Marjory C., died April, 1892. There was considerable emaciation. The skull-cap was thickened, but not dense, and the inner table was pale. The dura was slightly thickened, and there was rusty staining on its inner surface in both temporo-sphenoidal fossæ. The encephalon weighed 36½oz., the cerebrum 29½oz., the cerebellum and pons 5½oz., and the fluid in the lateral ventricles and under the arachnoid 1½oz. There were in addition 4oz. of cerebro-spinal fluid. The pia-arachnoid was markedly milky, especially over the vertex, where it was tough and thick. It was adherent to the cortex to a slight degree over the lower frontal convolutions only, but it did not strip off so readily as in a normal brain over nearly the whole surface. The two hemispheres were not adherent; the cerebral vessels showed slight thickening, the convolutions were very markedly atrophied, most of them being flattened instead of rounded on the top. In addition there was a localized softening of the middle of the second and third left temporo-sphenoidal convolutions for about two inches of their length. It had an opaque, dirty brown colour, and on section it was found to be confined to the grey matter. Elsewhere the grey matter appeared pale, and was soft and much atrophied. The basal ganglia were pale and mottled in appearance. The

ependyma of the ventricles was covered with numerous fine granulations. Fresh sections of various convolutions were made, and the following appearances were found. There was thickening of the pia mater, and an increase of small cells in it. The superficial part of the cortex was sclerosed, and contained a number of faintly-stained spider-cells. These cells were also present, more or less, throughout the various layers of the grey matter, but were most numerous in the outermost and deepest. The adventitial nuclei of the vessels were proliferated, and there were collections of pigment-granules in many of the perivascular spaces. The nerve-cells were in various chiefly advanced stages of granular degeneration. In most of them the nucleus was angular in shape and irregularly stained, many showing the same faintly-stained point seen in the previous case. These changes were most marked in sections from the frontal region, but even in the occipital convolutions they were evident enough. The uterus and ovaries in this case also were in an infantile state of development.

The fourth case, Martha C., died in May, 1893, and I have to thank Dr. Mitchell, of Rosewell Asylum, for permission to make the post-mortem examination and obtain sections of the brain.

The body was much emaciated. The skull-cap showed great thickening of both inner and outer tables. The dura mater was not adherent to it, but it showed considerable general thickening, and the smaller vessels were dilated. Over both sides there was a delicate fibrinous sub-dural membrane, more evident on the left side, on which side also there were a few spots of hæmorrhage in the temporo-sphenoidal fossa. On the right side it was quite transparent and colourless. On opening the dura there escaped more than 6oz. of cerebro-spinal fluid. The encephalon weighed 35½oz., the cerebral hemispheres 28½oz., the cerebellum, pons, and medulla 5½oz., and there were 1½oz. of fluid in the ventricles. The pia-arachnoid was very milky, especially over the vertex, and it was adherent to the cortex along the top of nearly all the convolutions. The hemispheres were strongly adherent. The brain was small and the convolutions simple but well-marked, owing to their great atrophy and the distinctness of the sulci. The atrophy was most marked in the frontal and parietal lobes. On section the grey matter was pale, soft, and much atrophied. The basal ganglia had a mottled appearance. The ependyma of the ventricles was thickened and showed the usual granular surface. The pia mater of the cerebellum was also thickened and slightly adherent to the subjacent grey matter. The cerebral vessels were evidently thickened. Microscopic examination of the cortex showed the usual thickening of the pia mater with matting from interlacing of the spider-cell processes in the outer layer of the cortex. Spider cells were also present in the deepest layer. The adventitial nuclei of the vessels were increased in number. The nerve cells of the second and third layers had undergone marked

pigmentary degeneration, those of the deeper layers had a granular appearance. As before, the uterus and ovaries had retained their infantile characters.

Having now completed the description of the cases, the next step is to draw from them what general conclusions seem warrantable. Foremost amongst these there naturally stands the question of *causation*. Dr. Clouston, in discussing this point in connection with the two cases already referred to, concludes that in them hereditary syphilis played a most important, if not the most important, part. These additional cases have only strengthened this view, for in four of them there were very strong evidences of its existence both from the hereditary history and from the examination of the patients themselves. In the other case it was not possible to get any history, and the existence of symptoms in the patient herself was doubtful.

Dr. Shuttleworth* and others have already drawn attention to the influence of hereditary syphilis in the production of brain disease, but the cases described have been mostly of idiocy and imbecility. Dr. Shuttleworth has lately, however, admitted that some may have been developmental general paralytics.† In this connection an interesting paper by Prof. Homén appeared in the "*Archiv für Psychiatrie*," Vol. xxiv., pt. 1, p. 191 (1892). In it he gives an account of three cases of paralytic dementia occurring in one family. Two were boys and one a girl. In them the mental symptoms were practically identical with those in the cases I have described, but he does not mention any motor symptoms. After death there were found a few adhesions of the pia mater to the cortex, but some other changes found in general paralysis were absent. The chief positive change was a syphilitic disease of the blood-vessels. In the cases I have seen this was looked for, but was not found, so it may be that the difference between the two series of cases lies in the presence or absence of this vascular disease.‡

Of the other causes contributing to the production of the disease little can be said. In one case traumatism, according to the parents, was the exciting cause, but it was some

* "On Idiocy and Imbecility due to Inherited Syphilis," "*American Journal of Insanity*," 1888.

† Wigglesworth. "General Paralysis occurring about the Period of Puberty," "*Journal of Mental Science*," July, 1893.

‡ Cf. Dr. Drummond's Address in Medicine, at British Medical Association Meeting at Newcastle, "B. M. J.," Aug. 5, 1893, p. 298.

time after the accident before symptoms were observed. In three cases there was a direct heredity towards nervous disease—two of actual insanity, one of locomotor ataxia. In another case there was a history of alcoholism. As a contributory cause, mentioned by Dr. Wiglesworth in his recent paper, parental neglect was present in at least one case, possibly two.

The next point is the question of *age*. In all the six cases described, the onset of the disease was between the ages of 14 and 16, the average being a little under 15. This is just about the age when sexual development begins to be matured, and it is noteworthy that in all the cases examined the uterus and ovaries had not developed beyond the so-called infantile stage, and the menstrual function either had not appeared at all, or had done so on only one or two occasions. This seems to be more than a mere coincidence, and further justifies Dr. Clouston's nomenclature of the disease.

It is remarkable that the above cases should all have been *females*. Only five cases are recorded of its occurrence in boys, whereas twelve have been girls. The cause of this difference is still obscure, and we are not even in a position to suggest what the reason is, or whether it is merely accidental.

The duration of the disease is generally considerably longer than in adults. In the four fatal cases the average duration was a little under five years. In some cases where the duration was short it is possible that the gradual onset of symptoms may have led the relatives to date the commencement later than it really was.

The *clinical characters* of the cases were remarkably uniform, and coincided entirely with previous experience. Mental enfeeblement, beginning insidiously and progressing steadily, was the outstanding feature in every one. The emotional condition in the initial stages was generally one of mild happiness, but it was not strongly marked. The usual motor symptoms of general paralysis were always present, though in a less degree than in most adult cases.

As for the accompanying *pathological changes* in the brain there is a no less remarkable agreement. In all there was very marked atrophy. The weight of the cerebrum, in which the effects of the disease were most apparent, was in all cases below 30oz., the average being 27½oz. The healthy cerebrum at a corresponding age is on an average about 38oz.,

so that the extent of the disease is at once apparent. The degree of adhesion of the membranes varied much, in some being slight, in others marked. The microscopic characters were fairly uniform, the chief changes being degeneration of the nerve-cells, increase in the lymphatic elements or spider-cells, and of the adventitial nuclei of the blood-vessels. They were, in short, such as one would expect to find in a slowly advancing case of general paralysis without much mental excitement.

Since the above was written another case has been admitted into Morningside:—

She was sent by Dr. J. Thomson, of Edinburgh, and I have to thank him for notes of the previous history. She—a girl, A. McB.—was only 11½ when the first symptoms of the disease began. There is no definite syphilitic heredity, but it is an open question. A maternal grand-uncle was insane. The onset of the disease was very gradual, and was noticed first about twelve months before her admission to Morningside, on October 7th, 1893. There was no apparent exciting cause, and the first symptoms noted were, loss of memory and intelligence, “nervousness” and stuttering in her speech. The impairment of mind gradually became worse, and motor symptoms then became apparent, viz., tremors of the tongue, lips and fingers, altered gait, and tremulous, deliberate speech, also inequality and irregularity of the pupils. On admission these were all very evident, and there was little doubt about the case being one of Developmental General Paralysis. Emotionally she was, as a rule, contented, frequently smiling in a vacant way. At times, however, she became angry and screamed loudly without apparent cause. There were no unmistakable evidences of hereditary syphilis in the patient, but she was decidedly under-sized and ill-developed. She remained in the asylum little more than a month, and was then removed by her parents as she was not getting better. During her short stay under observation there was not much change in her condition, and I have heard that since she left she has become much worse, and there is not much likelihood that she will live long.

REFERENCES TO CASES.

See summary given in Dr. Wigglesworth's paper, “*Journal of Mental Science*,” July, 1893. Bristowe, “*Clinical Journal*,” March 29, 1893, p. 350.

Régis, “*Encéphale*,” 1883, iii., 433; and “*Encéphale*,” 1885, v., 578.

Bristowe, “*Brit. Med. Journ.*,” Nov. 18th, 1893, p. 1099.

*A Case for Diagnosis.** By REGINALD H. NOOTT, M.B., Sen.
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In the month of December last year, J. A., a patient in Winson Green Asylum, Birmingham, killed two of his fellow patients soon after being put to bed in a dormitory. A few days afterwards J. A. was transferred to Broadmoor Criminal Lunatic Asylum, where he died on the 12th of August last. The case had several points of considerable interest, which may be gathered from the following extracts from the clinical notes taken while J. A. was at Broadmoor, and from the evidence which was given at the Coroner's inquest held on the two victims.

It was given in evidence at the inquest that J. A., aged 37, a carter, was admitted into Winson Green Asylum at noon on December 11th, 1892, and was immediately put to bed in the observation dayroom, where he remained until a quarter before eight o'clock in the evening, at which time he was removed to a bed in an adjoining dormitory, together with four other patients. The dormitory was visited by a night attendant at a quarter-past eight, and between that time and the attendant's next visit J. A. violently attacked two of the other occupants of the dormitory. One of these patients succumbed to his injuries in half-an-hour; the other died five days afterwards. From the time of J. A.'s admission into the asylum at noon till the time he was put to bed in the dormitory at eight p.m. he behaved quite quietly, and gave no indication whatever of being a dangerous lunatic, but, on the contrary, had shown a very benevolent disposition. When seen by one of the medical officers of the asylum a few minutes after the murderous assault took place J. A. repeated several times, "God told me to do it."

J. A. was transferred to Broadmoor Asylum on December 22nd, eleven days after the above occurrence. On admission his conversation was, to a certain extent, incoherent and rambling, but as long as one carefully kept his attention on one subject he was able to answer questions on that subject fairly connectedly. He had delusions of wealth; he stated that he had over £100,000 in the Bank of England. He also had delusions of persecution; he said his food had been poisoned at Birmingham, and that everything had been done to injure him. On being questioned as to the crime, he on every occasion stated that he was absolutely ignorant of it, and denied having committed it. He several times said, "I had no reason to kill anyone, so why should I have done it?" also, "If I did it why didn't they hang me?" On being examined more

* This case is referred to in "Journal of Mental Science" for July, 1893, p. 458.

closely as to what had taken place on the day he was taken to Winson Green, he remembered, and gave a fairly clear account of what had occurred up to the time he was put to bed in the dormitory; but he said he remembered nothing more "until he woke up the next morning in a different place." The first night he was in Broadmoor he slept in a room by himself. He was very restless all night, and tore one of his blankets. When seen by the medical officer the following morning he said he had "slept all night," and being questioned as to the torn blankets he said "somebody must have come into the room and done it." He did not take any breakfast because "there was poison in it." On physical examination his heart and lungs were found to be sound. His pupils were moderately dilated, of equal size, but reacted to light slowly. The other reflexes were normal. There were no muscular tremors. After the medical officer's visit he dressed and went to the airing-court and afterwards to the day-room. The following night he slept well. From this time he improved rapidly, being occasionally restless and noisy at night, but giving no trouble whatever during the day. On January 3rd, 1893, it was noted that all delusions had disappeared, and that his conversation was coherent and rational. At this time he was interrogated again minutely as to what happened during the time he was at Winson Green, but still his memory was a complete blank as to the attack on his fellow patients. Being unable to write himself, he dictated a letter to his wife, which was rational and coherent. On January 20th it was noted that the above improvement had been maintained, but that he was dull and apathetic, taking very little interest in his surroundings, and seldom speaking unless first spoken to. The patient continued in much the same condition from this date until March 20th, when he was very restless, walking about his room the greater part of the night, and shouting at intervals. When seen by the medical officer the following morning he said he had slept well all night, and did not remember having been out of bed at all during the night. He continued to be very restless, but particularly so at night, until the night of March 24th, when he slept well. The following day he was much quieter, and spoke coherently; but gave expression to delusions of persecution, saying "They are all on to me," "They won't let me alone," etc. At this time his memory was extremely defective, more especially that for recent events. He now again settled down into the apathetic and irresponsible condition above referred to, and there was very little change to be noted for the following four months. On August 2nd he appeared to be "dazed," and practically insensible to what was going on around him; he, however, could be roused, and when spoken to he would, after a short interval of time, answer in an incoherent and irrelevant manner. He remained much in this state, though at times brighter than others, until August 11th. On one occasion during this time, when visited by the

medical officer, J. A. was standing in the corner of his room, and when asked by the medical officer why he was not in bed he replied, "I am in bed." On the evening of August 11th it was evident that some change of a grave nature had taken place. It was much more difficult to rouse him, he was extremely prostrate, and his temperature was found to be 104.6° . Leeches were applied to his temples and aperients administered. His temperature gradually rose to 108.3° , and he died eighteen hours after the above acute symptoms had manifested themselves.

At the autopsy there was found extreme congestion of the meninges and some inflammation of the pia mater. There was some hypostatic congestion of the base of both lungs. The other organs were healthy.

What form of insanity did the patient suffer from?

In the first place the behaviour of J. A. in Winson Green Asylum, on the night of December 11th, 1892, was the behaviour of an epileptic. The extremely sudden change in his mental condition from one of benevolent quietude to one of wild excitement—the commission, during this latter state, of the homicidal acts related above; the hallucinations of hearing—the voice of God telling him to do it; the fact that after the attack had passed off he remembered nothing of what occurred during that night—all point, I think, to the case being one of epilepsy. At the Coroner's inquest evidence was given that in the magistrate's order for his removal to an asylum the petitioners stated that he was subject to epilepsy. There was, however, no record of his having had a fit while in Winson Green Asylum. On the patient's admission into Broadmoor Asylum, the prominence of delusions of wealth and the patient's general benevolent disposition suggested the possibility of general paralysis of the insane, and with regard to this, it might have been that what was stated in the magistrate's order to be epileptic fits were really general paralytic convulsions; on the other hand there was the absence of any muscular tremors, the equality and normal dilatation of the pupils, and the absence of any defect in speech. At the same time the types of general paralysis are so varied and the sequence of symptoms so irregular that the possibility of his being a general paralytic was not put entirely out of the question. The rapid disappearance of the above delusions and the general mental improvement, however, indicated that either he was not suffering from general paralysis, or that this was an example of that remission which occasionally takes place in that disease. The attack of mental excitement which J. A. passed through between March 20th and March 24th was so very similar to an epileptic attack—minus the fits—that again attention was drawn to the possibility of this being a case of epilepsy. The attack which took place on August 2nd was in every way similar in character to the one which occurred in March, with the exception that it was of much longer duration, and the stupor at times more profound.

I would suggest that this is a case of *epilepsie larvée*, or *masked epilepsy*, and further that the last attack, which was of longer duration and more severe than the others, and which terminated in acute meningitis and death, was the analogue of the *status epilepticus* which so often terminates in meningitis.*

OCCASIONAL NOTES OF THE QUARTER.

Sir Andrew Clark, Bart.

It will always be a subject of regret that the late Sir Andrew Clark left unfinished an article on "Gouty Melancholia," which he contributed to the "Journal of Mental Science" (Vol. xxvi., p. 343). In this paper, consisting mainly of an imaginary dialogue between the physician and a medical practitioner who consults him about his patient, he graphically describes the symptoms in reply to the inquiry what Sir Andrew really meant by "gouty."

"What it exactly means to other people I do not pretend to know; what it means to me I can tell you very shortly. By the gouty state I mean the state brought about in certain constitutions by the retention in the blood and tissues of the body of certain acid and other waste stuffs, and their effects thereon."

He proceeds to describe these constitutions as characterized by "a certain type of nervous impressibility, but a feeble capillary circulation, by tendencies to venous congestions, and by deficient excretory powers."

The practitioner humbly asks how this gouty state is to be recognized? His teacher replies that there is hardly any tissue, or organ, which does not at one time or another become the seat of these symptoms. "There is the glazed, the dusky, congested throat, catarrhal, acid, and painful indigestion, localized persisting abdominal pains, recurring diarrhoeas, portal congestions with diminished bile excretion, and neuralgias, and the like, fleeting albuminurias, asthma, bronchitis, etc., bouts of irregular action of the heart, with transitory murmurs, venous congestions, etc. In the nervous system itself curious head-

* I may take this opportunity of correcting a statement made by Dr. Whitcombe at the Coroner's inquest. Dr. Whitcombe there stated that some years ago a Commissioner in Lunacy was killed in Broadmoor Asylum by a patient who was the subject of homicidal impulse. Dr. Whitcombe, no doubt, was referring to the murder of Mr. Lutwidge by William McKave, which took place at Fisherton House, Salisbury, and not at Broadmoor. During the thirty years Broadmoor Asylum has been open, no murder has been committed by any of the inmates.

aches, vertigo, numbness, sensations of loss of power," above all, in relation to our own specialty, "sudden elations and depressions of spirits, and fits of morning misery."

The sad list is not exhausted, for there may be conjunctivitis, cataract, chronic nasal inflammation, cramps, muscular quiverings, odd pains in the heel, the instep, and the arm, and swellings of the fingers, while in the cutaneous system there may be troublesome eczemas and boils.

Sir Andrew Clark is asked what proof he can give of the connection between these symptoms and gout?

The reply is that people thus affected are peculiarly liable to gout, and that when the latter arises, these manifestations disappear. Sir Andrew gives a case of bronchitic asthma in his own practice which regularly alternated with gout in the hand. The medical practitioner reverts to his own patient, and asks for some proof that his melancholia is due to gout.

The previous history of the case affords the proof. The patient had suffered from indigestion four years ago, and became nervous, irritable, depressed, sleepless, and full of fears. He had slight liver attacks, then he had eczema on the forefinger, behind the ear, etc. Although sometimes better, he was never well; at last he had gout in the foot. Enjoined to live carefully, his health was good for two years. Then he fell, in consequence of being careless in his diet, into a state similar to that from which his gout had purged him. Again he has gout, and again he recovers. But once more having fallen into loose ways of eating and drinking, and neglected exercise, he drifted into the old state of dyspepsia, flatulence, acidity, his bowels irregular, his urine light coloured and of low density, and his skin yellowish. As the patient has headache, is irritable, nervous, and full of baseless fears, especially on waking, *without gout*, the conclusion is reached that these symptoms take its place: "The gouty stuffs retained in the blood and in the tissues strike with a partial severity the nutritive and functional activities of the nervous system, and you have the melancholia as the substitution for the gout. This is your patient's gouty melancholia."

An acute clinical physician like Sir Andrew Clark did not fail to observe the alternation of asthma and gout, and, in the medical practitioner's case, the alternation of gout with melancholia.

The article breaks off with noting the greater impressibility and subjectivism of women, the greater disturbing influences of retained waste in their system, and the contention

that many of their nervous affections, at the turn of life, have a gouty origin.

The practitioner is doubtless greatly impressed with Sir Andrew Clark's pathology of gouty melancholia, but he has come to him for practical advice, and he ventures to ask the question, "What have you to suggest, doctor?"

The request was never complied with in the pages of this Journal. In vain, during 13 years, was editorial importunity employed to induce the author to complete his task. To the excuse that he was too busy to fulfil his promise, it was hinted that other tasks were undertaken which were, to say the least, not more necessary than the matter in hand. The good-natured physician, who no doubt preferred "fresh woods and pastures new," could only reply that his favourite text was the apostle's homily on charity, and that he begged for its exercise in the present instance.

It may be stated, however, that as regards drugs he was fond of prescribing an alkali, preferably bicarbonate of potash, a bitter and perhaps spirit of chloroform. Then he would often add a drop or two of tinct. opii *to take the edge off the anguished nerves*, as he expressed it. A dose of the mixture was to be taken twice a day, two hours after dinner, and on going to bed. An alterative was usually prescribed, consisting of a grain of blue pill and one or two of colocynth, to be taken twice or thrice a week for some time. Moreover fluid magnesia was sometimes ordered, and directed to be taken by the patient on waking in the morning.

His favourite directions in regard to diet may be best indicated by the following, which we give from an instruction to a patient in his own handwriting.

On waking drink slowly half-a-pint of cold or of hot water.

Breakfast.—Bread and butter with one egg, or a wing of a cold chicken, or a little fresh fish, and one cup of weak tea.

Mid-day Dinner.—Half-a-pound of fresh tenderly dressed meat, bread, mashed potatoes, and fresh green vegetables. (In some cases a moderate dose of whisky was prescribed as a beverage.)

Tea, like breakfast, not earlier than 7 p.m. (In exceptional cases the patient accustomed to take whisky was allowed a small quantity at bed time.)

Avoid soups, sauces, pickles, spices, curries, fats, pies, salted or otherwise preserved meats; pastry, cheese, jams, fruits, rhubarb, lemons, tomatoes, vinegar, and all acid things; malt liquors, cyder, perry, wines, and acid drinks. Be as much as possible in the open air, and potter about on trot.

But neither drugs nor diet formed the central factors of his treatment or explained his success and widespread popularity. His treatment was emphatically psychological. "Suggestion" lay at the root of the wonderful growth which sprung up and bore fruit in the minds as well as the bodies of the patients who flocked to his consulting-room; the term, however, is too mild, unless understood in the technical sense in which it has been employed in recent times, that is to say no tame, half-hearted suggestion, but one so emphatic, so solemn, accompanied by gesture as well as word painting, so impressive and impassioned, as to make the patient feel that he must renounce his own will without reserve to that of the physician under whose control he had placed himself, or continue to suffer. With what earnest emphasis would he enjoin his favourite precept, "Walk in the paths of physiological righteousness." On one occasion an inebriate lady, forbidden to touch wine, asked him whether she might not take a little *sal volatile*. Sir Andrew replied in a tone which the patient was not likely to forget, "On the peril of your life, madam, not another drop!" A distinguished medical friend, in relating the story to us, added that he himself would have probably replied politely, "No, you had better not take any"—and would have failed.

Patients struggled vainly to gain some mitigation of the rigorous dietary to which they were subjected by their genial, but autocratic doctor. They had thought themselves free agents when they entered his room; they left it captives to the wise and health-giving commands by which they were fascinated and dominated.

In short, Sir Andrew out-Bernheimed Bernheim; he was, in a word, the most successful hypnotist of his day.

The Disuse of Inquisitions under the New Lunacy Acts.

The comparative disuse of inquisitions under the new Lunacy Acts is naturally giving rise to much uncertainty and diversity of opinion in medico-legal circles. An attempt to explain the nature and extent of the departure which has been taken under these Statutes may not, therefore, be inopportune. It should be premised that—thanks to the somewhat meagre interest which medico-legal questions excite in Parliament—the pages of Hansard throw little light upon the solution of the difficulty, and the matter is, of course, not one that can readily be made the subject of judicial interpretation.

For the present purpose we may select as the starting point of our inquiry the 52nd Section of the Lunacy Act, 1889—a measure which, after having passed the House of Lords in 1883, was again before Parliament in 1886 and 1887, and ultimately came into operation on 1st May, 1890. The section to which we have referred provides (Sub-Section 1) that where any person is lawfully detained as a lunatic, or where any person not so detained and not found a lunatic by inquisition, shall be proved to the satisfaction of the Judge in Lunacy* to be through mental infirmity, arising from disease or age, incapable of managing his estate or affairs, the Judge in Lunacy, upon the application of such lunatic or other person by his next friend, may make an order that the next friend or any other person approved by the Judge may, on behalf of the lunatic or of the person so incapable, exercise any powers or do any acts in relation to his property which *the Committee of the estate of a lunatic so found by inquisition* could, by virtue of the Lunacy Regulation Act, 1853, and the Acts amending the same, under an order of the Judge or without an order, exercise or do on behalf of the lunatic. An order under this Section might confer upon the person named in it authority to do any act or exercise any power specified in the order, or a general authority to exercise on behalf of the lunatic until further order, all or any of the powers of the Committee of the estate of a lunatic so found by inquisition, without further application to the Judge (Sub-Section 2), and every person appointed to do any such acts, or exercise any such powers, was made subject to the jurisdiction and authority of the Judge in Lunacy as if he were the Committee of the estate of a lunatic so found by inquisition (Sub-Section 4). Applications under this Section were to be made in such manner, upon notice to such persons, and subject to such restrictions as might be appointed by the General Orders in Lunacy, and subject thereto in each case as the Judge in Lunacy might determine (Sub-Section 3).

The only observations which these provisions suggest are (1) that they enable the Judge in Lunacy to deal with (a) persons lawfully detained as lunatics, though not so found,

* The Judge in Lunacy was defined by the 91st Section of the Act to mean the Lord Chancellor or any Judge of the Supreme Court of Judicature, entrusted for the time being with the care and commitment of the custody of the persons and estates of idiots, lunatics, and persons of unsound mind. The Act of 1889 is wholly repealed by the Act of 1890, but the expression Judge in Lunacy, though occurring in the latter Act, is not defined in its interpretation clause, nor is this omission remedied by the Lunacy Act, 1891!

and (b) persons not so detained or found, but incapable of managing their own affairs through mental infirmity arising from disease or age, without inquisition, but, to all intents and purposes, as fully as if an inquisition in lunacy had been held, and (2) that, in so doing, they pursue, although upon different and wider lines, the policy of simplifying the procedure by which insane persons may be found lunatic, which has inspired much of our modern lunacy legislation. We come now to the Lunacy Act, 1890, which took effect on the day appointed for the commencement of the Lunacy Act, 1889, and wholly repealed that Statute. The analogue to the 52nd Section of the Act of 1889 is to be found in the 116th Section of the Act of 1890. The provisions of the new Section may be briefly summarized. The powers and provisions relating to management and administration are to apply to lunatics so found (Sub-Section 1, a), to lunatics not so found, for the protection or administration of whose property any order has been made before the commencement of the Act (Sub-Section 1, b), then to the same classes as were comprised within the 52nd Section of the Act of 1889 (Sub-Section 1, c and d), to persons of unsound mind and incapable of managing their affairs, whose property does not exceed £2,000 in value, or £100 a year in income (Sub-Section 1, c), and to criminal lunatics who continue insane and in confinement. The Section then goes on to provide (Sub-Section 2) that in the case of any of the above-mentioned persons, not being lunatics so found by inquisition, such of the powers of the Act as are made exercisable by the Committee of the estate under order of the Judge (we shall see what these are presently) shall be exercised by such person in such manner, and with or without security as the Judge may direct, and any such order may confer on the person there named authority to do any specified act, or exercise any specified power, or may confer a general authority to exercise on behalf of the lunatic, all or any of such powers, and without further application to the Judge. After this we have the old provision that a person appointed to act in this way shall be subject to the jurisdiction of the Judge in Lunacy as if he were the Committee of the estate of a lunatic so found by inquisition (Sub-Section 3), and a Sub-Section (4) restating the principles on which the exercise of the jurisdiction in lunacy has been based since the Statute *De Prerogativa Regis*, that the powers of the Act relating to management and administration "shall be exercisable in the discretion of the Judge for the maintenance or

benefit of the lunatic or of him and his family." The powers which may be exercised under these sections are of the widest possible description, and include payment of the lunatic's debts or engagements and of the expense of his past and future maintenance, discharge of any encumbrance on his property (Section 117, i.), charges for permanent improvements (Section 118), sale, exchange, or partition of his property, the grant or surrender of mining, agricultural, and building leases, and the execution of any powers of appointment or otherwise vested in the lunatic (Section 120). The only other statutory provision to which we need refer, in order to complete this general sketch of the nature of the new procedure, is the 27th Section of the Lunacy Act, 1891, which (a) enables the Masters in Lunacy to exercise the jurisdiction of the Judge as regards administration and management, and (b) extends the 2nd Sub-Section of Section 116 of the Act of 1890 to persons incapable from mental infirmity arising from disease or age of managing their affairs, *though not lunatics*. Now let us consider (1) the effect of these enactments, and (2) the machinery by which the new procedure is put in operation.

(1.) *The Effect of the Enactments.*—We may at once clear the ground by placing aside four of the classes to which the powers of management and administration are declared to apply. The Act of 1890 is a consolidating statute, and, therefore, Section 116 includes "lunatics so found by inquisition" and "lunatics not so found," for the protection of whose property orders have been made (*e.g.*, under Sections 12-14 of the Lunacy Regulation Act, 1862, as amended by Section 3 of the Lunacy Regulation Amendment Act of 1882) before the commencement of the present Act. Administrations to small estates are too familiar to require notice; and the only observation suggested by the inclusion of criminal lunatics within the purview of Section 16 is that it supersedes Section 10, Sub-Section 3, of the Criminal Lunatics Act, 1884. What the new enactments undoubtedly seem to effect is this. They enable an inquisition to be dispensed with, and yet the consequences of an inquisition to be practically attained, in the case of (a) every person lawfully detained as a lunatic though not so found, and (b) every person not so detained and not so found, who is proved to the satisfaction of the Judge in Lunacy to be, through mental infirmity arising from disease or age, incapable of managing his affairs, whether such person (*Cf.* Act of 1891, Section 27) is or is not a lunatic within the meaning of the

statute.* And they do this regardless altogether of the amount of the property which is at stake. Over the property of both the classes above-mentioned, the Judge and the Masters in Lunacy would now appear to have as full a control without an inquisition as they could formerly have derived by means of it. Of course, no provision is made for a control of the person of any member of these classes under Section 116 of the Act of 1890; but in the case of a man already "lawfully detained" as a lunatic, the absence of such provision is of little importance, while under the summary procedure created by the Act persons incapable of managing their affairs, from mental infirmity, may be subjected to control under reception orders, whenever their infirmity becomes legal "unsoundness of mind." In the form in which they were first promulgated these provisions were liable to two objections. In the first place, they tended to deprive persons of property of their immemorial and valuable right to be found lunatic by inquisition. In the second place, they did not, apparently, confer upon them the benefits of Chancery visitation. An attempt has recently been made to obviate these defects. The Rules in Lunacy, issued by the Lord Chancellor on the 15th of June, 1893, provide that upon any application under Section 116 of the Lunacy Act, 1890, the masters *may, if they consider it desirable* for the care of the person, or for the management of the estate, or otherwise in the interest of any lunatic or alleged lunatic, direct such person as they think fit to present a petition for an inquisition, and if such direction be not complied with within ten days, or such further time as the masters may allow, the masters may direct such petition to be presented by the official solicitor, and the official solicitor shall present the same accordingly (Rule 1). The 5th Rule stipulates that the Chancery visitors shall, *upon the request of the masters*, visit and report as to any persons with reference to whom or to whose estate an application is pending before, or an order has been made by the masters. It is to be observed (1) that these provisions are facultative merely, and (2) that persons who, though incapable, from mental infirmity, of managing their affairs, are *not lunatic*, are still liable, in so far as their property is concerned, to be treated as lunatics so found, without an inquisition. The new procedure does, as we have already remarked, to some extent pursue the policy of our modern lunacy legislation, by invading the province of the

* A lunatic means an idiot or person of unsound mind. Section 341, Act of 1890.

old inquisition, and at the same time strengthening the jurisdiction of the Judge in Lunacy. By some it has been queried whether it does not transgress the limits within which this policy is safe and expedient.*

(2.) *The Machinery by which the New Procedure is put into Operation.*—In the case of applications respecting the property of any person of unsound mind (Rules, 1892, Rule 48), or any person who, though not a lunatic, is, through mental infirmity arising from disease or age, incapable of managing his affairs (Rule 56), seven clear days' notice of the application is to be given to such person, by service on him of a copy of the summons—which is returnable not less than seven clear days from its date—with a notice endorsed thereon signed by the applicant or a solicitor (Rule 48). An affidavit of service, stating particularly the time, place, and mode of such service, and where there has not been personal service the grounds of such service, is to be filed with the masters (Rule 49). The person so served may file a notice of objection to the application (Rule 50). The masters may dispense with notice to such person of any application after the first (Rule 51), may direct that notice of the application be given to any of the next-of-kin of the person to whom the application relates, or to any other person, and only such persons as the masters direct to be served with notice are entitled to attend before them (Rule 53). The masters may visit (Rule 52), or direct the Chancery visitors to visit (Rules, 1893, Rule 5), any person as to whose property an application under Section 116 of the Act of 1890 is made. They may also order an inquisition to be held in such cases (see above, and Rules of 1893, Rule 1). In other respects the provisions of the Rules relating to lunatics so found by inquisition and “the other general provisions of the Rules,” apply to cases arising under Section 116 of the Act of 1890, except that the masters may make orders appointing persons to exercise, in relation to the property of persons of unsound mind not so found by inquisition, the powers of a committee of the estate (Rule 55). Applications under Section 116 of the Act of 1890 will, of course, be supported by medical affidavits. But the disuse of inquisitions in such cases will render subsequent medical testimony for the most part unnecessary.

* Another objection to Section 116 of the Act of 1890 was that while the estates of the persons included in it were deriving the benefit of the legal arrangements of the statute, they were released from the obligation of making an adequate contribution to the funds by which those arrangements are carried into effect. This defect has, however, been removed by the Lunacy Act, 1891, Section 27, Sub-Section 3.

Forensic Hypnotism.

If the Dutch judicial authorities ever seriously proposed to hypnotize De Jong, in order to extract from him a clue, which they believed him to be able to give, as to the whereabouts of his alleged victims, the proposal was very promptly extinguished by public and professional criticism both in Holland and in this country. Even the inquisitorial jurisprudence of the continent surely cannot sanction so flagrant an injustice as to convert a prisoner into his own accuser and judge by the aid of hypnotic suggestion. For this and none other would be the result of the hypnotization of persons accused of crime. We are not unmindful of the subtle distinction which the Dutch law is said to draw between the use of statements made by hypnotized subjects as a medium for further inquiry and the acceptance of such statements as legal proofs; the former, we are told by some authorities (although their opinion is disputed), the law of Holland permits, the latter it prohibits. In point of fact, however, this distinction is worthless. Once let an acute *juge d'instruction* compel a prisoner to supply him with "clues," and he will soon both turn them into legal evidence (how far such evidence is reliable we shall consider immediately), and let the jury understand that the case for the prosecution is corroborated by the testimony of the prisoner himself. If the hypnotization of prisoners should ever again become a practical question on the continent, we trust that the fact to which we have here called attention will be kept in view, and that a form of inquisition, which is morally as unjustifiable as the rack, will not be introduced under the cover of a distinction without a difference. The case against the hypnotization of prisoners becomes all the stronger when we consider how unreliable the testimony of hypnotic subjects has been proved to be. It is unnecessary to sum up the evidence on this point in any detail. Every student of hypnotic science is familiar with the story of how Lombroso endeavoured to obtain from a criminal, convicted on the clearest evidence, a confession of his guilt, only to find that the convict repeated the same tissue of falsehoods which he had told at his trial; and this case is corroborated by the incident recorded by Moll, of a subject who resisted suggestions to confess the commission of some crime so strenuously as to induce a violent attack of tetanus. It is true that, on the other side, we have the instance of the hypnotists who were obliged to waken a patient lest he

should make them the repositories of inconvenient secrets; but there is apparently nothing to show that these incipient confessions were true, and in any event an isolated case of this kind cannot out-weigh the evidence in support of the contrary conclusion. It is not only because of its repulsiveness and probable uselessness that we rejoice that the proposal to hypnotize De Jong was abandoned. There can be no doubt that if such an experiment had been tried it would have repelled both the public and the medical and legal professions from giving to the phenomena of hypnotism that respectful consideration to which they are justly entitled. How injuriously the prospects of hypnotic science in this country were affected by what transpired at the Eyrard and Gompard trial, no intelligent observer of contemporary medico-legal history needs to be told. We should have regarded a second *contretemps* of the same kind with deep regret. In a variety of forms the problem of hypnotism will soon be upon us. We may close our eyes to its approach. *Pur si muove*. How shall we determine the civil capacity and the criminal responsibility of hypnotized subjects? When is hypnotic influence "undue?" How shall we best protect the patient from the hypnotist, and the hypnotist from possible false charges on the part of the patient? With these and other questions of the same description we shall have ere long to deal. We earnestly hope that no untoward incidents in the meantime will deter the educated public from studying hypnotic phenomena in a spirit of calm and dispassionate inquiry. It would, indeed, be a misfortune if, when the problem of hypnotism comes up for solution, its intrinsic difficulties should be intensified by our want of familiarity with its terms.

The Punishment of Habitual Criminals.

The Report for 1892 of the Commissioner of the Metropolitan Police throws a somewhat startling light on the present position of the controversy as to the relative juridical value of long and short sentences respectively in the case of offences against property, such as burglary and house-breaking, which constitute, as Sir Edward Bradford truly observes, the peculiar work of the habitual professional criminal. Now the statistics for 1892 point to the fact that in so far as crimes of this description are concerned the short sentence theory has already triumphed

over its rival. The convictions upon indictment in 1892 for offences under the class in which burglary and housebreaking are included numbered 409. A considerable proportion of these convictions were of habitual criminals, and yet ten years' penal servitude was the maximum sentence recorded, and this sentence was imposed in three cases only. In one case the sentence was eight years, in six cases it was seven years, in two cases six years, in twenty-nine cases it was five years, in two cases four years, and in thirty cases three years. In the 409 cases, therefore, there were 73 sentences of penal servitude, and 61 of these were for terms of five years or under. When we examine the matter more closely the defeat of the long sentence theory appears still more remarkable. Though there were 143 convictions for burglary, only 19 sentences of penal servitude were passed, the maximum being seven years, and this term was imposed in only two cases. The convictions for breaking into dwelling-houses, shops, etc., numbered 179, and in respect of these only 32 penal servitude sentences were recorded. One of these was for eight years, one for seven years, two for six years, and the rest for terms of five years and under. Sir Edward Bradford has no doubt that the policy of judicial leniency which has thus, to all appearances, set in will increase the national roll of habitual crime—(1) because short sentences do not deter confirmed criminals, and (2) because the obvious practical result of the short sentence theory is to raise permanently the proportion of such criminals who are "at large" at any particular time. It does seem undesirable that the legal principles which have hitherto obtained in regard to the punishment of professional criminals should be abandoned before we have at least had an inquiry by a competent tribunal into their working, and also into the probable effects of the system which it is proposed to substitute for them.

The Prevention of Suicide.

The increasing prevalence of suicide in this country is a phenomenon of grave social importance. Many of its causes, doubtless, lie beyond the range of either legislative or administrative remedies. We cannot avert the influence of commercial depression or religious excitement or alter the thousand and one climatic, telluric, and social conditions which lead men to take away their own lives. Nor can we

return to the drastic policy of earlier days, when the suicide was buried at midnight in the king's highway with a stake through his body, and without the rites of Christian sepulture. But two deterrents might be tried. In the first place, instead of treating attempted *felo de se* as attempted murder, it might, in accordance with Sir James Stephen's suggestion, be regarded only as a secondary offence, punishable by secondary punishment. Again—and the prospect held out by the Death Certification Committee's report, of fresh legislation in our "crown's quest law," gives to this point an immediate interest—coroners' juries ought not to be permitted to return, nor should coroners be allowed to receive verdicts of "temporary insanity" in cases where not a vestige of evidence of mental disease in the legal sense of the term was adduced. The amiable humanity which inspires such verdicts is worthy of some respect, but its consequences are bad, and further manifestations of this weak disregard of duty ought to be prohibited by law. It may well enough be that the average *felo de se* is not able fully to appreciate either "The Suicide's Argument" or "Nature's Answer" to it, at the time when he lays violent hands on himself. But this is not what the law means, or ought to mean, by insanity; and we see no reason whatever why the mental state of suicides should not be determined by the criteria which govern the question of criminal responsibility in other cases. We deplore this weak sentimentality.

The Limehouse Murder Case.

Mr. Asquith has done wisely in commuting the capital sentence passed on Lewis in this case to one of penal servitude. The circumstantial evidence against the prisoner was utterly inconclusive; and his confession of guilt—deliberate and complete as in point of form it undoubtedly was—had a *souçon* of insanity about it of which the mind has some difficulty in getting rid. The jealousy with which the criminal law regards naked confessions of guilt is justified by experience. There can be no doubt that it was mental disease which prompted the witches of old to make their false revelations as to the hideous mysteries of the *sabbat*. And other cases are recorded in which sometimes from insane delusion, sometimes from insanity without delusion, sometimes from sheer *tædium vitæ*, and at other times from an infamous desire for notoriety, or a laudable

impulse to shield the guilty, men have confessed, with the utmost circumstantiality, crimes which it was subsequently demonstrated that they had never committed. The case of Hubert, who falsely confessed that he had set fire to London in 1666, and paid for his falsehood with his life, is an instance in point. A still more remarkable case is that of the two Boorns, convicted in the Supreme Court of Vermont, September, 1819, of the alleged murder of Russell Colvin seven years before (*Cf. Taylor, "Evid.," Vol. i., p. 240, n. 2*). It appeared that Colvin, who was the brother-in-law of the prisoners, was a person of weak mind, that he was considered burdensome to the family of the prisoners, who were obliged to support him; that on the day of his disappearance, being in a distant field, where the prisoners were at work, a violent quarrel broke out between them, and that one of them struck him a violent blow on the back of the head with a club and felled him to the ground. Some suspicion arose at that time that he had been murdered, and these were increased a few months afterwards by the finding of his hat in the same field. These suspicions in process of time subsided; but in 1819 one of the neighbours having repeatedly dreamed of the murder with great minuteness of circumstance, both in regard to his death and the concealment of his remains, the prisoners were vehemently accused, and generally believed guilty of the murder. Upon a strict search, the pocket-knife of Colvin and a button of his clothes were found in an old open cellar in the same field, and in a hollow stump, not many yards from it, were discovered two nails and a number of bones, believed to be those of a man. Upon this evidence, together with their deliberate confession of the fact of the murder and the concealment of the body in these places, the prisoners were convicted and sentenced to death. Fortunately they were not executed, as their supposed victim turned out to be in New Jersey, and came home in time to prevent their execution. He had fled for fear they would kill him. The bones were those of some animal, and the prisoners had confessed on the advice of some foolish friends, who told them it was their only chance of saving their lives in view of the strong popular prejudice and the circumstances proved against them. A similar case in Virginia recently came under our own observation. In the light of such miscarriages of justice, it is impossible not to feel a sense of relief that the convict in the Limehouse murder case was not permitted to go to the gallows.

THE ASYLUM CHAPLAIN'S COLUMN.

As a "Chaplain's Column" has just been introduced into the Journal, the time and place seem appropriate for a short notice of the life of a distinguished man who was chaplain of a county asylum for more than thirty years.

The Rev. Henry Hugh Higgins, who was born in 1814, and died on July 2nd, 1893, was appointed chaplain to the Rainhill Asylum in 1853, and held the office till 1886, when he resigned on account of failing health.

In 1882 he suddenly broke down during morning service, and a careful medical examination revealed the existence of organic heart disease, accompanied with a certain amount of aphasia. As Mr. Higgins was always an abstemious liver, and habitually over-taxed his strength, these symptoms seemed less unfavourable than they would have done in a man who "fared sumptuously every day," and after a complete rest from his work of four months, spent at Grange, in Morecambe Bay, he returned to his duties, and continued to fulfil them uninterruptedly for four more years.

Mr. H. H. Higgins was one of the two sons of Mr. Higgins, of Turvey Abbey, Bedfordshire, both sons being remarkable men in their own walks of life.

Of the elder brother, the story of whose life may be read in "The Lives of Twelve Good Men," by the late Dean of Chichester, his brother-in-law, as the "Good Layman," it is not necessary to say more here than to remark that being the eldest son, in accordance with county family traditions, he was not allowed to act up to his desire to enter the Church, in which there is little doubt he would have arrived at a bishopric, whilst the subject of our memoir, because the second son, had to become a clergyman, although with no strong predilection for the office. The training for his future calling probably tended to hinder the development of Mr. Higgins' energies as a naturalist, and he might under more favourable circumstances have achieved a world-wide instead of little more than a local reputation as a naturalist and scientist, for he was very learned in all branches of natural history, especially in vegetable and invertebrate animal life, and the work done by him in collecting and arranging specimens of almost every known entomological order and species in the Liverpool Museum will remain as a monument to his memory as long as the Museum lasts.

Together with his intense love of natural history, he was (like Darwin) a keen and skilful sportsman, and as a companion in a fishing expedition he was charming. He was also an excellent musician, and in fact a good "all round" man. As chaplain to an asylum, he had sound ideas as to the nature and proper treatment of insane people, did not attempt impossibilities, and was always a courteous and loyal colleague.

When appointed to the chaplaincy at Rainhill, that asylum contained only 400 patients, and perhaps the absurdity of appropriating the entire time of a clergyman to minister to a handful of lunatics, when one man is sufficient for at least five times that number of sane people, could not be better illustrated than in the appointment of a man of Mr. Higgins' mental calibre to the office of chaplain.

He, however, by devoting so much of his time to scientific pursuits kept himself *au courant* with the outside world, both as to literature and science, and so escaped the temptation to which idle men, whether parsons or laymen, are prone.

Mr. Higgins was twice president of the Liverpool Literary and Philosophic Society, of which he became a member in 1846, was one of the founders and for very many years president of the Field Naturalists' Club, and had also been president of the Microscopic Society. It was characteristic of his energy that he took up the use of the microscope only quite late in life.

Although he has written no great work, he published numerous monographs from time to time, both on religious and scientific subjects. In 1876 he accompanied Mr. Reginald Cholmondeley as naturalist in a voyage to the West Indies in the steam yacht *Argo*, and published an account of his travels under the title of "Notes by a Field Naturalist in the Western Tropics." His description of Grange, under the head of "Notes by an Invalid Naturalist," is also a charming brochure.

In all his writings, whether one agreed with them or not, one could not help admiring both his thoroughness and style.

He died as he had lived—working, and in the act of writing a paper to be read on the following day at the meeting of the Museums Association in London, his pen still in his hand when his son came to look after him, a word half-finished, and not an error in what he had written.

T. L. R.

PART II.—REVIEWS.

Thirty-fifth Annual Report of the General Board of Commissioners in Lunacy for Scotland. Edinburgh, 1893.

During the year 1892, to which this Report refers, the total number of officially recognized lunatics in Scotland has risen from 12,799 to 13,058. This increase of 259 is larger than the increase for the preceding year, which was 234. During the year the following changes have taken place as regards the distribution of the insane :—In royal and district asylums, private and pauper patients have increased by 77 and 64 respectively; in private asylums there has been a decrease of six private patients; pauper patients have increased in parochial asylums by 46, and in lunatic wards of poorhouses by one; and in private dwellings there has been a diminution of 10 private patients and an increase of 84 pauper patients. The total number of registered lunatics has increased by 256, of whom 61 are private and 195 are pauper patients, and of this increased number, the increase in establishments is 182, and in private dwellings 74. The table on opposite page shows the number of lunatics on 1st January, 1893, and their mode of distribution.

Dealing in the first place with establishments, we find that the number of private patients admitted during the year was 530, 43 less than during the preceding year, but 53 more than the average for the quinquenniad 1885-89, and that the number of pauper patients admitted was 2,404, 51 more than during 1891, and 343 more than the average for the quinquenniad mentioned. Seventy-three voluntary boarders were admitted during the year, as compared with 77 in 1891. The necessity for precautionary measures as regards the mental condition of such admissions is again emphasized by the Commissioners, and that this is not uncalled for is evidenced by the fact that the recorded accidents include the suicide of one of this class.

Of the *recoveries* 204 were private patients, which is 22 less than the preceding year, but 18 above the average for the five years 1885-89, and 1,112 were pauper patients, which is 153 more than in 1891 and 183 above the average for the five years 1885-89. The proportion of recoveries to admissions, private and pauper, from 1885 is given in the table on top of p. 70.

NUMBER OF LUNATICS AT 1ST OF JANUARY, 1893.

MODE OF DISTRIBUTION.	Male.	Female.	Total.	PRIVATE.			PAUPER.		
				M.	F.	T.	M.	F.	T.
In Royal and District Asylums ...	3585	3903	7488	772	844	1616	2813	3059	5872
" Private Asylums ...	53	104	157	53	104	157	...	...	...
" Parochial Asylums, i.e., Lunatic Wards of Poorhouses with unrestricted Licenses ...	731	839	1570	...	...	...	731	839	1570
" Lunatic Wards of Poorhouses with restricted Licenses ...	435	441	876	...	...	...	435	441	876
" Private Dwellings ...	1033	1601	2634	37	78	115	996	1523	2519
" Lunatic Department of General Prison	5337	6888	12725	862	1026	1888	4975	5362	10337
" Training Schools...	40	15	55	...	...	...	...	...	...
"	183	95	278	84	62	146	99	33	132
TOTALS ...	6060	6998	13058	946	1088	2034	5074	5895	10969

CLASSES OF ESTABLISHMENTS.	Recoveries per cent. of Admissions.			
	1885 to 1889.	1890.	1891.	1892.
In Royal and District Asylums ...	39	38	35	41
„ Private Asylums	34	35	28	44
„ Parochial Asylums	42	46	42	43
„ Lunatic Wards of Poorhouses	6	11	13	4

The mortality rate in establishments, it will be remembered, was very unfavourably influenced in 1891 by the prevalence of influenza, and though in 1892 it is very much lowered, it has not yet resumed its normal limit, and seemingly owing to the same cause, for the proportion of deaths per 1,000 resident, from “thoracic affections” and “fever,” which in 1890 was 34, and in 1891, 46, was in 1892, 39. The following tables show the death-rate for private and pauper patients in establishments and the death-rate in the different classes of establishments:—

CLASSES OF PATIENTS.	Death-rates in all Classes of Establishments per cent. of the Number Resident.			
	1885-89.	1890.	1891.	1892.
Private Patients... ..	6·6	8·4	9·0	7·0
Pauper Patients... ..	8·1	8·1	9·6	9·0

CLASSES OF ESTABLISHMENTS.	Proportion of Deaths per cent. on Number Resident.			
	1885-89.	1890.	1891.	1892.
Royal and District Asylums	7·8	8·5	9·5	9·0
Private Asylums	8·0	7·8	5·1	7·5
Parochial Asylums	8·9	8·9	12·7	8·4
Lunatic Wards of Poorhouses... ..	5·5	4·0	4·4	6·1

The number of *accidents* reported during 1892 was 114, three less than during the previous year, but the number

ending fatally, 18, is seven more than in 1891. In nine cases the death was suicidal, two by hanging, one by strangulation, one by a fall from a window, one by cut throat, and two by going in front of a passing train; one patient, who escaped, was found killed on a railway line, and another, who escaped, was found drowned. Of the nine non-suicidal fatalities two were due to a fall in an epileptic fit, four to asphyxia in a fit, and three to suffocation by impaction of food in the air passages. In 43 cases the accidents involved fracture of bones or dislocation of joints, occasioned in 32 instances by falls, in four cases by struggling with fellow patients or attendants, unintentionally inflicted in two cases, and in five cases the causes were unascertained.

The management, medical and general, of the various establishments continues to be highly spoken of by the Commissioners in their reports of visitation.

The statistics given in the Report afford unmistakable proof of the continuation of that activity which has so long characterized the Scotch Lunacy Board in the matter of boarding-out of the insane poor. During the year 1892 this class of patients has increased by 84, which means an increase of .4 per cent., and a corresponding diminution in the proportion maintained in establishments. At the same time the relative cost of the two methods has undergone no alteration. During the past six years the proportion per cent. of all pauper lunatics boarded out has oscillated between 23 and 24, and it would almost seem as if this represented the limit of this method of providing accommodation. With regard to the possibility of the presence of insane individuals exercising a hurtful influence on the sane among whom they are placed an authoritative statement is given by one of the Deputy-Commissioners who has had fifteen years' experience of the method.

"On reviewing," he says, "the private dwelling system as a whole, my opinion is that there is no harmful influence on the guardians from the presence of the insane in their houses, and this is the verdict of a host of guardians to whom I have spoken on the subject. The care of the insane in private dwellings, according to my experience, has more frequently had an elevating than a harmful effect on the guardians and their surroundings, as it has raised the standard both of personal tidiness and of household order and cleanliness," while as regards the possible hardship attending the removal of patients to outlying parts he remarks that this is more apparent than real, that the great

majority of boarded out insane are more accessible to relatives than patients in asylums are, and that even in the case of patients belonging to one of the suburbs of Glasgow who are boarded out in Islay there have been no complaints.

There is a disposition in England to attribute the high proportion of pauper patients maintained in private dwellings in Scotland to the fact that there the capitation grant is available in the case of patients so disposed of. Such a view is natural enough, but the statistics given by the Commissioners hardly bear it out, and it is doubtful if too much importance is not attached to it. If the application of the grant were alone responsible for the difference which exists in the distribution of the pauper insane in England and Scotland, one would naturally expect to find the commencement of this immediately subsequent to the year 1874. But this is not so. Starting with the year 1859, since when returns have been made for both countries, the statistical tables show that a steady uninterrupted diminution of the proportion of pauper lunatics maintained in private dwellings takes place both in England and Scotland up to 1880, *six years after the grant was first made*. And here the parallel ceases, for while in England the diminution continues in steady progression, in Scotland there is a contrary movement. In 1859 the proportion in England is 18·2, in Scotland 37·8; in 1880 the figures are respectively 9·4 and 18·1, a reduction by one-half; but in 1893 the proportions are for the two countries 7 and 23·2. The determining cause of the change which manifests itself in Scotland in 1880 is not to be found in a grant in aid which first came into operation six years previously; some other agency must have come into force at that time. The real reason for the large proportion of boarded-out patients in Scotland is to be found in the action of the Commissioners, who have all along strongly insisted upon the necessity of no longer detaining in asylums those who have so far recovered as to be able to be cared for outside of these establishments. This policy has been the means, undoubtedly, of a very great pecuniary saving to the ratepayers, who otherwise would have had to make large outlays for the erection of expensive accommodation, and so far as the patients are concerned it appears to conduce to their comfort and contentment, and to be free from any serious disadvantage from the point of view of the public. Judging from the remarks of the Commissioners in this and previous reports, the system is found to work well in Scotland, and in England,

even allowing for its being much more populous, there should, one would think, be room for its adoption to a much greater extent than at present. So far as the legal enactments are concerned there is now no great obstacle, for the Lunacy Act has been so modified as to render the boarding-out of lunatics in private dwellings, and even their removal to workhouses, possible without forfeiture of the grant in aid. It must be remembered that the system, though an economical one, involves a large amount of trouble and labour, both to the central and local authorities, and in the present state of affairs, the present staff of Commissioners in England, under-manned and over-burdened as they are, cannot be expected to undertake such a work as this. Let a niggard Treasury recognize its responsibilities and find the wherewithal to adequately remunerate a staff that will be sufficient for the work (of Commissioners *in posse* there is no lack), but until that is done there is, it is to be feared, no prospect of any action being taken in the matter.

We regret that our space does not allow of comment upon the interesting remarks made upon the alleged increase of insanity. They are important and well deserving of study.

*The Forty-second Report of the Inspectors of Lunatics,
Ireland. Report for the Year 1892.*

The Inspectors' Report for the year 1892 begins with the following table, showing the number of persons under care during the year :—

	On 1st January, 1892.			On 1st January, 1893.		
	Males.	Fe-males.	Total.	Males.	Fe-males.	Total.
In District Asylums ...	6,359	5,374	11,733	6,601	5,532	12,133
„ Central Asylum, Dundrum...	124	19	143	128	21	149
„ Private Asylums ...	266	366	632	275	369	644
„ Workhouses ...	1,656	2,524	4,180	1,701	2,497	4,198
„ Gaols ...	...	...	...	...	...	...
	8,405	8,283	16,688	8,705	8,419	17,124

A further table "shows that the number of insane under care has increased from 249 per 100,000 of the population in 1880 to 369 per 100,000 of the population in 1892." In the former year the population of the island was 5,206,648, and the number of insane under care 12,982; in the latter year with a population of only 4,638,175 the number of the insane had risen to 17,124.

The Inspectors discuss various explanations which may be summarized: Inaccuracy of older statistics; admission to asylums of large numbers of lunatics formerly wandering at large; "diminution of the population by emigration, which increases the relative number of the insane to the total population;" and the accumulation of chronic lunatics in asylums. With regard to the last item we are glad to think that even in Ireland improvement is taking place in the treatment of the insane, and we know that the praiseworthy efforts of the Inspectors are devoted to securing the means of prolonging the existence of even the most hopeless individuals among their charge, but surely it is not quite accurate to speak of the "low death-rate in Irish asylums as compared with the rate of mortality among the general population."

Although these causes would account for a very large relative increase of insanity, still we must adhere to our opinion, that they are not sufficient to explain the great increase of lunacy which has taken place of late years in this country. This opinion is strengthened by the table relating to admissions to district asylums given below, showing, as it does, an almost uninterrupted yearly increase of the number of first admissions in the face of a declining population.

The table referred to shows an increase of first admissions from 1,925 in 1880 to 2,415 in 1892.

Of the admissions 2,331 were sent to their district asylums, under the provisions of the Dangerous Lunatics Act, while only 850 were admitted in accordance with the forms prescribed by the Privy Council Rule.

Among the many inconveniences arising from the operation of the Dangerous Lunatics Act, the Inspectors point out that it encourages fraud by enabling patients to be sent to asylums free whose friends should contribute to their support. No explanation is given of why there should be more than one method of admitting pauper patients to district asylums. We have been asking this question for a great many years, but have never been able to obtain a satisfactory explanation.

In 198 instances post-mortem examinations were made. It is a gratifying fact to record that year by year the number of these examinations, which in our opinion are of so much importance for the protection of the insane, and for the furtherance of the scientific study of insanity, should show a gradual increase.

Still, we cannot think the proportion (under twenty per cent.) is satisfactory. There are now four asylums in Ireland which are or will be teaching centres. Surely, in the large public asylums where instruction is given pathology should not be overlooked, yet we find the Inspector noting in one of these that but one post-mortem examination had been made in fourteen months. On the other hand, we are glad to find a note to the effect that a mortuary is being built at the Armagh Asylum, "which will provide room for pathological research."

Four suicides occurred during the year (through an oversight, only three are enumerated in Table X., though four are described in the text of the Report). At Carlow Asylum a patient escaped, and was found next day hanging from a tree about three miles from the asylum. At the Richmond Asylum a female patient killed another in an associated dormitory by fracturing her skull with a chamber utensil. In the latter case the verdict at the inquest was to the effect that the number of attendants was insufficient, and that the institution was much overcrowded, "thereby largely increasing the difficulties of efficiently safeguarding the welfare of the patients."

The recommendation regarding the number of attendants has been carried out by the Board of Governors.

From another portion of the Report there appear to be in that asylum twelve night nurses for about 850 patients.

With regard to accommodation in the district asylums the Inspectors speak as follows :—

The accommodation in district asylums in this country still continues quite inadequate to supply the wants of the insane population. We have again to repeat the statement made in former reports that the overcrowding is rapidly increasing, and that the necessity for further accommodation is becoming more and more urgent. On the other hand, we are glad to be in a position to report that the governors of almost every district asylum in Ireland are now fully aware of the necessity of meeting the requirements of their respective districts, and, in a large number of instances, have already sanctioned the necessary expenditure for alterations and additions, so that we may hope within a reasonable time the accommodation will be rendered in

some degree better adapted to meet the immediate wants of the insane poor.

At Armagh, Antrim, Belfast, Cork, Clonmel, Carlow, Killarney, Kilkenny, Omagh, Londonderry, and Waterford new works are needed, and are mostly being carried out. Additional space for patients is being provided, as well as administrative offices (kitchens, laundries, stores, waiting rooms, mortuaries, etc., adequate provision for all of which seems in some unaccountable way to have been overlooked in the original construction of Irish asylums, and in some quite miraculous way to have been also dispensed with up to the present).

The following rather Hibernian entry occurs with reference to the asylum for the Metropolitan district:—

RICHMOND.—During the year no relief has been obtained as regards the overcrowding of this asylum. The number of patients now almost reaches 1,500, whereas the asylum only accommodates about 1,100.

Anywhere except in Ireland one would have expected some account of the patients who are not “accommodated,” but the Inspectors proceed —

It is therefore not to be wondered at that the general health of the institution is far from satisfactory, and that the death-rate, as compared with other Irish asylums, is high, amounting to 12·5 per cent., the average death rate in similar institutions in this country being 8·3 per cent. Constant outbreaks of zymotic disease have occurred. Dysentery has for many years past been almost endemic in this institution—73 cases with 14 deaths occurred last year, and it may be mentioned that in no less than three of these cases secondary abscesses were found in the liver. The only adequate remedy for the very unfortunate condition of the institution is to erect a second asylum. This the governors have determined to do.

We are very glad to find that the post of assistant medical officer “now exists in all Irish asylums, with the exceptions of Carlow, Castlebar, Letterkenny, and Waterford. A third assistant medical officer and pathologist has been added to the Richmond Asylum staff.”

These are steps in the right direction.

The State Criminal Asylum, which appears to be progressing admirably under its new management, is briefly dealt with in the text of the Inspectors’ Report. Appendix B. consists of statistical tables referring to the Criminal Asylum and a statement of its affairs by the medical superintendent.

The latter appears to indicate an immensity of most difficult work of reorganization done, and well done. No one can read it without seeing that Dr. Revington is a man of advanced views, and one who is determined to secure a very high level of management. Nevertheless, we doubt whether the system which the late and present Inspectors have adopted of not writing memoranda of inspection at the Criminal Asylum, but calling upon the superintendent to report upon himself, is a desirable or even fair one. No man likes to hide his light under a bushel, while it must be really painful to a modest and kindly man to have to refer to the "worst characteristics of the former administration,"—to "the absence of records and registers, and the existence of thousands of unclassified papers"—and to "the amusements of the patients which had shrunk under the continuous disorder," and which now, happily, are being well attended to. What we feel is that it should not fall to the lot of the superintendent to write a report upon himself to be published without comment in the Inspectors' Blue Book. Some endorsement by the Inspectors of the remarks made by the superintendent in this case would give that gentleman the praise which we are sure is due to him.

Of workhouses containing lunatics the Inspectors speak thus:—

Their condition in many of these establishments continues to be far from satisfactory, notwithstanding the interest as regards this class which the Local Government Board and its Inspectors have shown. In many workhouses they continue to be practically untended, their only attendants being pauper inmates, while the accommodation provided is inadequate to meet their requirements, and, as a result, proper attention is not in all cases given to personal cleanliness. These results are due as much to the want of proper legislative enactments for the protection of these persons as to the fault of the local authorities, who have not the requisite knowledge of the requirements now demanded for the proper care of the insane poor.

We only wish that we could believe that this absence of "requisite knowledge" was confined to workhouse Guardians.

As the Inspectors always point out, the general state of private asylums in Ireland is not what it ought to be.

With a few exceptions, the condition and management of the licensed houses in this country are open to much improvement, when we consider the treatment which is provided for the insane

of the upper and middle classes in other parts of the United Kingdom. In this country the owners of some of our private licensed houses have not sufficient capital to enable them to furnish their establishments in the first instance in accordance with modern ideas, and to maintain the standard of comfort and treatment which is now found in similar institutions in other countries.

And accordingly "a large number of the insane of the wealthier classes are sent for treatment either to Scotland or England or the Continent."

Appendix F., containing the memoranda of inspections made at various asylums, is full of useful work, but is in too much detail for us to discuss it at any length. We are glad to find records of progress in many directions. The management of Armagh Asylum is highly commended.

I know of no similar institution in which there is greater evidence of care and attention on the part of the staff to the cleanliness and neatness of the insane. Each patient's clothes would appear to have been made to fit, and made with such taste that the objectionable look of "uniform" is almost done away with. These are no trivial matters; we go to very great expense in order to make the insane happy, and what can tend more to do so than attention to their personal appearance?

Mullingar Asylum is described as "truly a busy hive of industry."

The large number of patients employed recently excited the surprise of a distinguished English superintendent, and indeed a return, such as that just given, would compare favourably with the industrial work done in other asylums in the United Kingdom. . . .

I found a large number of the patients sitting and working in two large tents pitched in front of the asylum. All those I examined were, with the single exception of an idiot boy, clean and tidy in person. There was an almost total absence of excitement, and I attribute much of the patients' remarkable tranquillity to the absence of a "refractory division," where, in some at least of our Irish asylums, the worst patients are congregated, and stimulate each other to excitement and violence.

And, finally:—

The Governors possess a resident medical superintendent who is able, zealous, and active, and I fully anticipate that he will, within a very few years, make the asylum an institution of which they as well as the central authority may well be proud.

Many other kindly comments, scattered through these memoranda, mark the appreciation shown by the Inspectors

for officers who strive to do their duty under the great difficulties existing in most Irish asylums.

Unfortunately the state of the buildings in most places calls forth severe strictures. At Belfast and at Londonderry, where old asylums exist in the towns and built all round about, the Inspectors urge that the old edifices should be disposed of, and the institutions moved out to the country. In Dublin, where the same conditions are found, they have not made a similar recommendation, though we understand the medical superintendent did so two years ago. Perhaps the Inspectors find that providing a second asylum for the Dublin district is a large enough task for the present. Clearly, however, all these old "intramural" asylums ought to be done away with altogether.

The Inspectors, who, we are aware, have far more responsibility for the structure of asylums than the English or Scotch Commissioners, have clearly received a lamentable legacy from their predecessors, and as clearly have many years of steady work to look forward to before they can hope to call all the public asylums institutions of which the central authority may well be proud. We sincerely wish them success.

The Life of William Cowper. By THOMAS WRIGHT, Principal of Cowper School, Olney. T. Fisher Unwin, 1892.

We confess with shame that the "Journal of Mental Science" does not contain a single article, long or short, on the mental aspects of the life of the poet Cowper. This was brought home to us several years ago when a physician and a prominent contributor to the National Biography by Leslie Stevens referred to our Journal for help in his study of this gifted but unhappy man, only to find absolutely nothing to assist him. We purpose to seize the opportunity of a new life of the poet to supply the deficiency, and so remove the ground of complaint to which we are justly exposed.

Cowper's insanity possesses an interest not yet exhausted, first because the unhappy subject of it was a justly distinguished poet, and secondly because it teaches the public a lesson they are slow to learn, and which many excellent people actually refuse to accept.

First, with regard to hereditary influence. It is an extraordinary fact that the poet's father,* a clergyman,

* He died after a second attack of paralysis in 1756.

took great interest in suicide in consequence of an acquaintance having died by his own hand. Either from the morbid hold the subject took on his mind, or from a lamentable want of common sense, he induced his son, then only 11 years of age, to read a treatise in support of suicide, and desired the boy to state his own opinion upon it. The youth gave his opinion, and the father did not express his own views either for or against the act, but his son inferred his approval, which "*weighed mightily*" with him in after years.*

Cowper has himself recorded that a tendency to lowness of spirits existed in his family; his brother John displayed morbid tendencies. Cowper's paternal grandfather was a judge. Cowper's mother was a Donne, who died in 1737, when her gifted son was only six, and belonged to an intellectual family.

He himself once wrote a humorous letter, in which he contrasts his puny *physique* with that of his ancestors, Picts, owing to the luxurious civilization of his immediate forebears.

He was, without question, constitutionally nervous and apprehensive. Sent to school at Market Street, Hertfordshire, he endured much suffering from the tyranny of an older boy. Southey quotes the statement that his infancy was "delicate in no common degree," and adds that "his constitution discovered at a very early season its morbid tendency to diffidence, melancholy, and despair."

It is easy to understand the injurious effects of "savage treatment" at school upon so sensitive a nature. The boy was expelled and Cowper was removed.

Religious impressions assumed an unhealthy form even when he was a boy at the Westminster School. He crossed the churchyard at St. Margaret's Church late one evening, and saw the sexton at work by the light of his lantern. Just at that moment he threw up a skull, which struck Cowper on the leg. This trivial circumstance alarmed his conscience.

I became, however, so forgetful of mortality that, strange as it may seem, surveying my activity and strength, and observing the

* Mr. Wright notes that "Conversations with two persons, one at a chop-house and another at a tavern, also strengthened his determination, for each gave it as his opinion that a man had liberty to die as he saw convenient, and that it was only cowardice that prevented people in deep trouble from making away with themselves."

evenness of my pulse, I began to entertain, with no small complacency, a notion that perhaps I might never die.

Reaction followed. He states that he "was soon after struck with a lowness of spirits uncommon at that age."

It is interesting to find the boy Cowper visiting Bethlem Hospital. His own description must not be omitted.

Though a boy, I was not altogether insensible of the misery of the poor captives, nor destitute of feeling for them. But the madness of some of them had such a humorous air, and displayed itself in so many whimsical freaks, that it was impossible not to be entertained; at the same time I was angry with myself for being so.

He was struck with "Cibber's mad figures" over the gateway, now preserved at the Guildhall Museum.

The legal profession which Cowper followed was not one in which he was likely to excel, or find congenial to his fine, sensitive, and retiring nature. For three years he was articled to a lawyer in London. True, his office work could not have been very oppressive, for he writes to Lady Hesketh long afterwards:—"I did actually live for three years with Mr. Chapman, a solicitor, that is to say, I slept three years in his house, but I lived, that is to say, I spent my days, in Southampton Row (his aunt's house), as you very well remember. There was I and the future Lord Chancellor. Consequently employed, from morning till night, in giggling and making giggle instead of studying the law." He was 21 when he left the office and took chambers in the Middle Temple in 1752. Here we must give at some length his own graphic description of a distinct attack of mental depression.

I was struck, not long after my settlement in the Temple, with such a dejection of spirits as none but they who have felt the same can have the least conception of. Day and night I was upon the rack, lying down in horror, and rising up in despair. I presently lost all relish for those studies to which I had before been closely attached; the classics had no longer any charms for me; I had need of something more salutary than amusement, but I had no one to direct me where to find it. At length I met with Herbert's poems; and, gothic and uncouth as they were, I yet found in them a strain of piety which I could not but admire. This was the only author I had any delight in reading. I pored over him all day long, and though I found not here what I might have found, a cure for my malady, yet it never seemed so much alleviated as while I was reading *him*.

Cowper remained in this condition for nearly a year. He says that having experienced the inefficacy of all human means he betook himself to religious exercises, and obtained relief. He enjoyed a change of scene, and one morning especially, while sitting down on an eminence near Southampton, he felt the weight of all his misery taken off, his heart became light and joyful in a moment, and he could have wept with transport had he been alone. This he attributed to nothing less than the *fiat* of the Almighty, but unfortunately he attributed to Satan his first and correct impression that change of scene was the cause of his sudden recovery.

He was called to the bar June 14th, 1754, but his professional work was evidently of a very trivial character, he "resting in indolent reliance upon his patrimonial means" (Southey).

Three years after the death of his father he was appointed a Commissioner of Bankrupts. He fell in love with his cousin, Theodora Jane, the daughter of Ashley Cowper. Her father objected to the union on the ground of consanguinity. On this occasion he wrote some lines of poetry expressive of his grievous disappointment, and the lovers never met afterwards.

It seems highly probable that this attachment, which was warmly returned, affected the poet's spirits; at any rate, it became necessary to give up his legal pursuits, although Southey produces evidence to show that his letters at that period were of a very lively description.

It may be observed that poetry was in the family. His father, his uncle Ashley, and his brother were versifiers. He speaks of himself as having dabbled in rhyme at the age of 14, when he translated an elegy of Tibullus.

His patrimony, small to begin with, became still smaller. Whether this circumstance acted unfavourably on his mind is not certain, but mental disease became well-marked shortly after.

It is noteworthy that in one of his earliest poems he speaks of poetical composition as the means of staving off mental depression. He observes that God knows that he has neither genius nor wit, and that, therefore, they do not induce him to poetize, but that he does so in order to resist the

Pierce banditti—

That with a black infernal train
Make cruel inroads on my brain.
The fierce banditti which I mean
Are gloomy thoughts, led on by spleen.

The joint offices of Reading Clerk and Clerk of Committees of the House of Lords became vacant. The poet's relative, Major Cowper, having these posts at his disposal presented the former to him. In the state of his finances he had ardently desired one of these offices, but his anxious temperament immediately shrank from the offer made to him. He himself says that he received a dagger in his heart.

I returned to my chambers thoughtful and unhappy; my countenance fell, and my friend was astonished to find, instead of that additional cheerfulness he might so reasonably expect, an air of deep melancholy in all I said or did.

He passed sleepless nights, and at last sent in his resignation, and he sought and obtained a less valuable post he flattered himself he could more easily fill—that of clerk of the Journals of the House of Lords. Calm followed for a time, but the appointment was opposed, and another man was supported by an influential party in the House. Cowper was told that his capacity for the post would be tested by an examination at the Bar of the House.

All the horror of my fear and perplexities now returned. A thunderbolt would have been as welcome to me as this intelligence. . . . They whose spirits are formed like mine, to whom a public exhibition of themselves, on any occasion, is mortal poison, may have some idea of the horrors of my situation; others can have none. My continual misery at length brought on a nervous fever; quiet forsook me by day and peace by night; a finger raised against me was more than I could stand against. In this posture of mind I attended regularly at the office, where, instead of a soul upon the rack, the most active spirits were essentially necessary for my purpose. . . . Many months went over me thus employed constant in the use of means, despairing as to the issue. The feelings of a man when he arrives at the place of execution are probably most like mine every time I set my foot in the office, which was every day for more than half a year together. At length the vacation being pretty far advanced I made shift to get into the country and repaired to Margate.

In writing at this time to Lady Hesketh (August, 1763), he thus analyzes his character:—

If I were to open my heart to you I could show you strange sights; nothing, I flatter myself, that would shock you, but a great deal that would make you wonder. I am of a singular temper, and very unlike all the men that I ever have conversed with. Certainly I am not an absolute fool; but I have more weakness than the greatest of all fools I can recollect at present.

Characteristic of melancholia is the fact recorded by him, that for some time after he had been to Margate, although the first day passed cheerfully, his first waking thoughts in the morning were horrible.

He looked forward to the winter, and regretted the flight of every moment that brought it nearer, like a man borne away by a rapid torrent into a strong sea, when he sees no possibility of returning, and where he knows he cannot subsist.

His return to his post placed him in the dilemma of either retaining possession of it to the last extremity, and by so doing exposing himself to a public rejection for insufficiency, or else to fling it up at once, and by this means to run the hazard of ruining Major Cowper's right to the appointment. He graphically describes how, when alone in his chambers, he cried out aloud and cursed the hour of his birth. He consulted the well-known Dr. Heberden, in doing which he compares himself to Saul, "who sought to the witch." He says reproachingly, he was diligent in the use of drugs, as if they could heal his wounded spirit.

I now began to look upon madness as the only chance remaining. I had a strong foreboding that so it would fare with me, and I wished for it earnestly, and looked forward to it with impatient expectation.

We cannot omit the following :—

My chief fear was that my senses would not fail me in time enough to excuse my appearance at the Bar of the House of Lords. . . . Now comes the grand temptation; the point to which Satan had all the while been driving me; the dark and hellish purpose of self-murder.

He then tells us that —

I fell into company at a chophouse with an elderly, well-looking gentleman, whom I had often seen there before, but had never spoken to. He began the discourse, and talked much of the miseries he had suffered. This opened my heart to him; I freely and readily took part in the conversation. At length self-murder became the topic, and in the result we agreed that the only reason why some men were content to drag on their sorrows with them to the grave, and others were not, was that the latter were imbued with a certain indignant fortitude of spirit, teaching them to despise life, which the former wanted.

He determined to commit suicide, and in November, 1763, obtained laudanum at the chemist's, which he kept in his pocket, determined to use it when required to attend at the

Bar of the House. In the meantime he construed a passage in the newspaper to be a satire upon himself. He took a coach and ordered the man to drive to Tower Wharf, intending to throw himself into the river, but upon coming to the quay he found the water low, and a porter seated near, as if on purpose to prevent him. He returned to the Temple and drew up the shutters, and resolved to drink off the laudanum in his possession.

Distracted between the desire of death and the dread of it, twenty times I had the phial to my mouth, and as often received an irresistible check; and even at the time it seemed to me that an invisible hand swayed the bottle downwards as often as I set it against my lips. I well remember that I took notice of this circumstance with some surprise, though it effected no change in my purpose. Panting for breath and in horrible agony, I flung myself back into the corner of the coach. A few drops of laudanum which had touched my lips, besides the fumes of it, began to have a stupefying effect upon me. Regretting the loss of so fair an opportunity, yet utterly unable to avail myself of it, I determined not to live; and already half dead with anguish, I once more returned to the Temple. Instantly I repaired to my room, and having shut both the outer and inner door, prepared myself for the last scene of the tragedy. I poured the laudanum into a small basin, set it on a chair by the bedside, half undressed myself, and laid down between the blankets, shuddering with horror at what I was about to perpetrate. I reproached myself bitterly with folly and rank cowardice for having suffered the fear of death to influence me as it had done, and was filled with disdain at my own pitiful timidity; but still something seemed to overrule me and to say, "*Think what you are doing! Consider, and live.*" At length, however, with the most confirmed resolution, I reached forth my hand towards the basin, when the fingers of both hands were as closely contracted as if bound with a cord, and became entirely useless.

At this critical juncture the laundress's husband entered, and Cowper quickly started up and hid the basin, but soon after flung both phial and laudanum out of the window.

The next morning was the dreaded time when he had to appear at the Bar of the House.

About three o'clock in the morning I arose, and by the help of a rushlight found my penknife, took it into bed with me, and lay with it for some hours directly pointed against my heart. Twice or thrice I placed it upright under my left breast, leaning all my weight upon it, but the point was broken off square, and it would not penetrate. In this manner the time passed till the day began to break. I heard the clock strike seven, and instantly it occurred

to me there was no time to be lost; "now is the time," thought I, "this is the crisis; no more dallying with the love of life!" He tried suspension from the corner of the bed by means of his garter, but it gave way in the two attempts he made. He then opened the door, suspended himself from it by his garter, and pushed away the chair on which he stood. He again heard a voice while he hung there. Three times it said distinctly, "'Tis over!" He lost consciousness, but came to himself again, and thought he was in hell. The sound of my own dreadful groans was all that I heard, and a feeling like that produced by a flash of lightning, just beginning to seize upon me, passed over my whole body. In a few seconds I found myself fallen on my face to the floor. In about half a minute I recovered my feet; reeling and staggering, stumbled into bed again. . . .

Thus ended all my connection with the Parliament office.

(*To be continued.*)

The True Story of Kaspar Hauser, from Official Documents.

By the DUCHESS OF CLEVELAND. London: Macmillan. 1893.

The Duchess of Cleveland evidently designs that her little book shall be the last word about Kaspar Hauser. Though this is not likely, we are pleased to have her version of the story, which may be assumed to be the same as the final judgment of her father, Earl Stanhope. Apparently it was indignation at some senseless inventions about the conduct of this nobleman in his benevolent treatment of the foundling which impelled her to write this book. Some years ago, when we had occasion to make inquiries about Kaspar Hauser, we totally failed to obtain a copy of the pamphlet published by Earl Stanhope, and it seemed as if the subject had fallen into neglect. It is too interesting, however, to disappear. We may refer inquiring readers to a paper in the "Quarterly Review" for April, 1888, and the books therein cited. It is noteworthy that the Duchess of Cleveland does not refer to this article, which takes a different view from her own. Kaspar Hauser's first appearance to the world took place on the 26th May, 1828, at the Neue Thor of Nuremberg. A man passing along saw a youth of singular appearance and staggering gait, who held a letter in his hand. He was taken to the guard-house. The letter was found to contain a statement that he was a child adopted by a poor labourer who had long kept him shut up,

but was now tired of the burden. The lad, it was added, had been taken away during the night, and could not get back. It was found that the young man himself could give no further explanation; he could only speak a few words, and did not seem to understand what was said to him. His whole behaviour showed a childish ignorance. He was taken to the Castle and put in a prison cell, where, however, he was kindly treated by the gaoler and his family. In the course of time he learned to speak, but his account of himself only increased the mystery. For a time, how long he could not tell, he had been confined to a small dark chamber quite alone. He had been fed on rye bread and water. He was kept clean; a man now and then entered his chamber, but rarely spoke to him. Finally some attempts were made to teach him to walk, to speak a few words, and to copy some written words to the effect that he should be made a trooper as his father was. After this he was carried away and left at the gate of Nuremberg. The interesting foundling was adopted by the town of Nuremberg, and his education was entrusted to Professor Daumer. The observations of his preceptor on the evolution of his faculties are of great interest to the psychologist, and it is annoying that doubt should intrude to spoil so fine a study.

The Duchess of Cleveland's little book is written to prove that Kaspar Hauser was an impostor, who artfully played the part of a child brought up under the privations of light and human intercourse. She quotes witnesses to prove that he could speak better and walk better than was afterwards represented. A judicial inquiry was made; twenty-four volumes of depositions were taken, in which there was some contradictory evidence. This, however, is often the case when a number of uneducated people give an account of some strange transaction. Some of the evidence, too, was taken years after the event. We do not think that anyone accustomed to sift evidence has assisted the Duchess in her task. Some of her attempts to throw discredit upon Kaspar's narrative prejudice her own case. For example, she tries to disprove the statement that Kaspar's eyes could not bear the light of day by quoting the gaoler's statement that in his childish ignorance he thrust his finger into the flame of a splinter of burning wood. But this surely showed a wonderful ignorance of the nature of fire, and there is a great difference in intensity between the light which comes from a burning stick and the flashing sunshine.

All witnesses are not equally good, but to three of them who gave evidence in this case we are bound to pay special attention. Hiltel, the gaoler, who first took care of the foundling, and who was used to deal with impostors and vagabonds, bore testimony to his childish demeanour, which seems to have the inimitable stamp of truth. His preceptor, Professor Daumer, who watched the evolution of Kaspar's faculties and conducted his education, had never any suspicion of imposture, and wrote a book in reply to Earl Stanhope and other sceptics.* Kaspar's case was carefully investigated by the veteran jurist, Anselm von Feuerbach, President of the Bavarian Court of Appeal, who published a book about him, entitled "A Crime against a Human Soul," and also left amongst his papers a copy of a memoir addressed to the Queen, Caroline of Bavaria,† in which he seeks to prove that Kaspar Hauser was the heir of a princely German house, put out of the way to favour another's succession.

We are neither able nor willing to read over all the depositions which were made about this singular case, and, indeed, the Duchess tells us that they have disappeared, but it would be difficult to set aside the opinions of these three persons, each in his own way well-fitted to arrive at a correct judgment.

Kaspar Hauser received many social attentions, more, indeed, than was good for him. Earl Stanhope, travelling on the Continent at the time, took him under his care and promised to provide for him. The young man's education went on, but not in all particulars with the results designed by his preceptors. He showed vices not unknown to those who have to train the childish mind. From being the artless son of nature, he became untruthful, skipped his lessons, and did not relish the Latin grammar. He would steal out of doors while supposed to be at his tasks, and got into a temper when scolded.

A new sensation startled the Nurembergers. A man got into Daumer's house at midday, struck Kaspar down, and then disappeared. The injury was represented as serious. For a long time after he was kept under the direct watch of the police. The Duchess affirms that the hurt was slight,

* "Enthüllungen über Kaspar Hauser, etc." Von E. F. R. Daumer, Frankfurt a/M, 1859.

† See Anselm Ritter von Feuerbach's "Biographischer Nachlass," Zweiter Band, p. 319; Leipzig, 1853.

and holds that it was inflicted by Kaspar himself to stimulate the waning interest in his case. Earl Stanhope placed him under the charge of Dr. Meyer, at Anspach. His behaviour did not improve. The young man was idle and deceitful. On a bleak winter's afternoon (1833), by his own account, Kaspar went to a public park to meet a stranger, when he received a stab which penetrated the lung and the heart. The poor fellow was able to walk back to Dr. Meyer's house and bring him to the spot, but the wound inflamed and he died about 78 hours after the injury. Though he knew that he was dying, he made no confession or further explanation. Earl Stanhope, on reviewing the whole of this singular narrative, came to the conclusion that Kaspar Hauser was an impostor, and wrote a pamphlet giving his reasons. "I suppose," the Earl used to say, "that I am the only man in the world that ever wrote a book to prove himself in the wrong."

The Duchess of Cleveland holds that Kaspar Hauser merely intended to give himself a slight wound to create fresh interest in his case, but that he over-did the incision, and was thus the cause of his own death. One doctor who examined the body thought that the wound was self-inflicted; another held that this could not be the case. Even granting that the unfortunate young man committed suicide through awkwardness, this is far from disposing of the whole case. It does not seem to be doubtful that this ill-starred being had been long kept confined in a dark cell, in a sitting position, entirely apart from human intercourse. His knees were so poorly developed that on stretching his legs a card could scarcely be pushed between the popliteal space and the floor. The Duchess tries to throw discredit on this by observing that there is no description of the state of his knees in the post-mortem report, but the medical men may have considered it useless in a medico-legal report to record a condition which had been well enough examined during life, and, moreover, this flatness of the hams must have been in part dependent upon the malnutrition of the muscles of the thigh and calf, which, after Kaspar learned to walk, would in a great measure pass away. The brain was found to be poorly developed; the occipital lobe did not entirely cover the cerebellum. The liver was enlarged. The doctors supposed that this was owing to his long confinement in a dark cell without exercise, like the Strasburg geese.

Kaspar Hauser must either have been the child of a high family or an impostor. Whichever view we take, there are difficulties and improbabilities to face. We cannot deny that the Duchess has thrown some doubts upon his pretensions, but if he played a part, he certainly played it wonderfully well, and at the outset, at least, for a very poor stake, as for several months he would eat nothing but bread and water; nor is it at all likely that he could foresee the train of events which rendered him conspicuous, but never happy.

The Feeble-Minded Child and Adult: A Report on an Investigation of the Physical and Mental Condition of 50,000 School Children, with Suggestions for the Better Education and Care of Feeble-Minded Children and Adults. With tables, list of books of reference, etc., etc. Swan Sonnenschein and Co., Paternoster Square, London. 1893.

This is one of a series of books published by the Charity Organization Society, bearing on various branches of charitable work. It seems that in July, 1890, the Council of the Charity Organization Society passed a resolution that a Special Committee of the Council should be appointed to consider and report upon the public and charitable provision made for the care and training of feeble-minded, epileptic, deformed, and crippled persons. It was referred to this Committee, which included many experts, to promote in the first place a scientific inquiry with regard to the number and condition of feeble-minded children or adults; to raise a fund for carrying on the inquiry, to be employed in payment for the services of medical men engaged in this investigation; and, lastly, to prepare for publication a statement endorsed by leading medical men and others specially qualified to form an opinion on the subject. This book is the result of the investigation set on foot by this Special Committee, and gives the result of the examination of 50,000 children, as well as many interesting particulars respecting the life of the feeble-minded adult. The International Congress on Hygiene and Demography passed two important resolutions unanimously, viz.: (1) That, according to recent returns, it would appear that an appreciable number of children, though not imbecile, are more or less defectively developed in brain and body; that for their

training and education special arrangements are necessary, and that in the absence of such arrangements there is great probability of grave moral and mental deterioration; and (2) that an investigation which has been made in regard to the conditions of bodily development and brain action in 50,000 children indicates new and grave problems respecting the provision necessary for the care and training of those who are more or less defective in make, and also respecting the causation in certain districts of mal-developments which are much associated with defects of the brain; and that an extended inquiry is desirable for the further elucidation of the subject. In order to carry on this inquiry a Committee on the Mental and Physical Condition of Children was formed, which holds its meetings at the Parkes Museum, in Margaret Street. The children, examined by Dr. Warner and others, were seen in Poor-Law schools, certified industrial schools, homes and orphanages, and public elementary day schools. The results of the investigation are very important, for it was found that of the 50,027 children no less than 9,186, or 18·3 per cent., were defective in some way or other. Examining these 9,186 still further, we find that 5,851 showed defects of development; 5,487 presented abnormal nerve signs; 2,003 were delicate, pale, or thin; 3,679 were reported by the teachers as being dull in school; 2,780 presented development defects, but no abnormal nerve signs; 2,416 showed nerve signs, but no defects; 1,473 showed eye defects; 67 were deaf; 239 were crippled, paralyzed, maimed, or deformed; 54 were epileptic; 234 were feeble-minded, and 817 required special care and training. These 817 may seem a small number to be cared for, but if we consider that on Lady Day, 1891, there were 782,611 children of the elementary school class, and, in addition, 10,143 attending Poor-Law schools, we find that there are no less than 792,754 children who require to be examined. Of these, taking the same proportion as before, 10,947, or 13 per thousand, will probably require special care and training. This affects London alone, but no doubt something like the same proportion would be found in the large provincial towns. If this be so, the question is one of national importance, and the actual number should be ascertained without delay by a further examination promoted by funds provided by the Government. According to General Moberly, these mentally exceptional children do not attend school, or nothing is done for them in the way of teaching. As these children belong to the State, and all

children now have a right to education, certainly these should have that advantage quite as much as the deaf and dumb, for whom provision has been made. The experience of those who have undertaken the education of the feeble-minded in Germany, Norway, Sweden, and Denmark is very encouraging. At Elberfeld, in Germany, for instance, the children are selected after having been for two years at an ordinary elementary school and found unable to keep up with the required curriculum. The teachers train them according to the methods found useful for teaching imbeciles and deaf mutes. They are kept at school for from one year to five years and a half, and sometimes beyond the age of 14. The following results are obtained: Of 40 pupils who left on the 1st May, 1885, 30 were able to pass their examination at the age of 14; 3 were sent away as idiotic; 5 returned to the ordinary elementary schools; 1 left the town, and 1 died. Of the 30, all but 6 afterwards obtained employment as artisans in various trades; and the girls as factory hands or servants. The school was established eleven years ago with 25 pupils, and there are now 90. The two principal objects kept in view are the prevention of idiocy and the withdrawal from the ordinary classes of a dead weight of backward pupils that hinder the progress of average children. At Christiania it is found that many of the pupils, after two or three years in these special classes, pass on to the ordinary school; some attain the standard prior to "confirmation," which every one there has to pass before going into any business capacity; some leave to go to special institutions for imbeciles; and some are ineducable, and, after full trial, are dismissed to their homes. It is interesting to know that the London School Board has now at work 10 classes of these children, and the results have already become so encouraging that it is intended to build special schoolrooms for them. The Leicester School Board has also a class undergoing special education. With regard to Poor-Law children, the Committee recommend that powers should, by Act of Parliament, be given to Boards of Guardians to send such children to any certified school-home fitted for their reception, as can now be done, under 25 and 26 Vict., cap. 43, sections 1 and 10, in the case of blind or deaf and dumb children. Whether the Guardians would make use of this power is another matter; some the reviewer knows would on no account part with their children, while others say that the total number in the Poor-Law schools in London is so

few that it is undesirable to take any further steps in the matter.

The second part of the book concerns the feeble-minded adult. Inquiries have been made as to the number of these cases; how far there was habitual resort to the workhouse; and how far there was lapse and eventual reversion to the workhouse. From some returns made by the Metropolitan Association for Befriending Young Servants it appears that 2,690 girls from Metropolitan Poor-Law schools have been placed under their care, and of these 170, or 6·3 per cent., were considered to be feeble-minded. As to the second question, the evidence of Poor-Law medical officers and lady Guardians shows that in large workhouses, with 1,200 to 1,500 inmates, the feeble-minded amount to 12 or 24. With reference to the third point, there is no doubt that a large number do lapse and return to the workhouse, often as the mothers of illegitimate children. The evidence of all those who have to do with the subject is that return to the workhouse after the age of 16 is undesirable and may be ruinous; and that homes should be provided into which feeble-minded girls after leaving school could pass direct. The experience of three of these homes which are now at work is highly encouraging, and the Charity Organization Society strongly recommends the formation of small homes where there can be occupation and oversight of adults of feeble mind.

The book is well got up, and contains much valuable information which will be useful to those who are at work at this difficult subject.

The Epileptic and Crippled Child and Adult: A Report on the Present Condition of these Classes of Afflicted Persons, with Suggestions for their Better Education and Employment.
Swan Sonnenschein and Co., Paternoster Square, London. 1893.

This is a sequel to the book "The Feeble-Minded Child and Adult," and arose in the same manner, viz., from a special Committee of the Charity Organization Society. This volume is a part of the report of that Committee, printed separately for the convenience of persons who are more particularly interested in this subject. The first point to be made out was the number of epileptics for whom provision should be made. It seems that in Germany the number is estimated at one per thousand of the population.

In New York State Dr. Peterson puts the number at 12,000, or about two per thousand, and it is estimated that in Great Britain the number will be about the same. Of these provision should be made for about 10 per cent. Of the 50,027 children seen by Dr. Warner, 54 had a history of fits. The physical condition was as follows:—35 had nerve signs, 35 were dull, 11 suffered from low nutrition, and 28 from defects of development. The low nutrition cases were in the public elementary schools. The next point to be examined into was how far could epileptic children attend an ordinary school, and should they be taught? There is no doubt that epileptics have a disturbing influence in a school, and, as a matter of fact, the teachers will have nothing to do with them. A separate home or homes in the country is the place for them, where not only medical, but moral, intellectual, and manual training can be given to the children, and where skilled artisans, who by reason of their malady cannot be employed, can there carry on a trade. The experience of the Asiles John Bost and La Teppe in France, Haarlem in Holland, and the epileptic colony at Bielefeld in Germany, is very encouraging. The last consists of a number of homes for all classes of patients and for all kinds of industrial occupations, and is situated in two of the woodland valleys of the old Teutoburger Forest, and includes a farm of 1,000 acres, worked by the colonists. It is (1) a sanatorium, (2) an institution for the education and instruction of epileptic children, (3) an institution for the employment of epileptics, and (4) an asylum for imbecile epileptics. In June, 1891, there were 159 children, who were being educated in seven different classes. Of these 89 were boys and 70 girls; 86 were of sound and 73 of weak mind. The youngest children are taught in the day by those who have charge of them at night. During 1889 there were in the colony 606 male and 407 female adults; 30 per cent. of the admissions in that year were epileptic imbeciles. In 1878, some years after the establishment of the colony, there were 250 patients; in 1891 there were 1,073, and in that year 1,277 were under treatment. The colony is supported partly by contributions made on behalf of the patients, partly by grants made by provincial bodies, and partly by church and house to house collection. The results of treatment are as follows:—During the twenty years from 1867 to 1887, of 2,407 epileptics treated in the colony 156, or 6·0 per cent., were discharged recovered, and

over 450 improved. The ratio of attendants to patients is one to eight. In London, if a colony were established, we might expect an actual demand for at least 800 to 1,000 patients. In America Dr. Peterson has ably advocated the cause of the epileptic, and his proposals for the establishment of colonies have been adopted by some of the Boards of State Charities. In New York the State Charities Aid Association received from him and Dr. Jacoby the outline of a plan of a colony, and the New York Legislature have appointed a Commission to select a site and report. In England there are only two homes at present, one established about the year 1889 by Dr. Alexander and others at Maghull, and one at Godalming, capable of containing 50 beds, by Lady Meath. It is now proposed by the recently formed National Society for the Employment of Epileptics to establish a colony for patients in or near the metropolis. The industries to be first attempted are market gardening, cow keeping and dairy work, and poultry farming. Other industries will subsequently be added. With reference to crippled and deformed children, Dr. Warner found 239 out of the 50,027 children who were seen by him in the school inquiry. It appears also that there were 110 of them among the 36,378 children seen in the Public Elementary Schools. On Lady Day, 1891, there were 625,696 children between the ages of three and 13 on the rolls of efficient Public Elementary Schools, so that, if among these children there were as many crippled as among the 36,378, there would be a total of 1,890, or three in the thousand to be provided for. There are at present five institutions for cripples, independently of the Invalid Children's Aid Association, which provides for the hopeless cases and for the earlier assistance of those who may be able afterwards to master their failings and support themselves. On the 31st December, 1890, there were about 2,200 children on the books of this Association. Some of these are in convalescent hospitals and other institutions, and the rest are in their homes, which are visited by ladies. It appears that many of the hopeful cases do well, the girls as servants and the boys in various trades. The Committee conclude that special facilities for the elementary education of the crippled and deformed are urgently required, and that it is desirable that there should be an extension of industrial homes for cripples on the lines of the existing institutions, providing both for their preliminary education and for their future industrial training. With regard to

the adult crippled very little can be done; a few may be able to leave the workhouse or infirmary, but the bulk are and must be permanent residents there.

In the Appendix there is an outline of a plan for an epileptic colony by Dr. Peterson, a description of what is proposed to be carried out in the English colony when it is established, and a list of existing institutions for epileptics in the European countries. The book contains a large amount of information which will be useful to those who are interested in the subject.

A Colony of Mercy; or, Social Christianity at Work. By JULIE SUTTER. London: Hodder and Stoughton. 1893.

Miss Sutter's work will prove instructive and interesting to a wide class of readers; it is a graphic description of a large colony instituted for the care of the mentally or otherwise afflicted. One cannot but admire the development of such a grand and far-reaching scheme for the improvement of the weak in the struggle for life as is exemplified at Bethel, and the enthusiasm of the writer, we feel sure, will in no small degree help the extension of an acquaintance with the scope of the work accomplished by this colony of mercy. Let us hope that it may act as a stimulus to the growth of similar colonies elsewhere. Primarily intended as a home for epileptics, the Bethel Home, situated in the Ravensberger country, Westphalia, has no less than five distinct branches at the present day:—

- I. Home for Epileptics, Bethel proper.
- II. The Westphalia House for the Training of Deaconesses, Sarepta.
- III. The Westphalian Brotherhood, Nazareth.
- IV. The Labour Colony, Wilhelmsdorff.
- V. The Association Workman's Home.

In 1867, as a result of a meeting at Bielefeld, a manufacturing town in Westphalia, a farmhouse was bought for the housing of epileptics; in 1872 the number of patients had increased from 4 to 26, and it is at this time that there appeared on the scene, as superintendent, a man of genius, with a powerful intellect and a heart imbued with true charity, Pastor von Bodelschwingh. Under his wonderful administration the place has grown to its present proportions (a population of 3,000 souls and over 100 houses),

and ministers to the insane, the drunkard, the unfortunate, etc., etc.

The secret of the success of this gigantic undertaking, evidence of which we find at every page of Miss Sutter's book, is due not so much to the ready response of the Germans to appeals for money, but to the exemplary self-sacrifice of the staff of men and women who act under their pious chief. The house-fathers and brothers, the mothers and deaconesses of Bethel, all possessed of the love and sympathy of their pastor for the "unfit," without hope of pecuniary reward or earthly honours, spend their life in comforting them and ministering to their wants; and so Bethel, with its numerous appendages, thrives.

In the treatment of epileptics the plan of decentralization is carried out; this, of course, requires a much more complicated staff, but to the patients the advantage of their separation into congenial groups and the facilities for the allotting of work are a great boon. There are shops—carpenters', tailors', shoemakers', bookbinders', etc.—but as far as possible out-of-door labour is carried on. A small wage, or pocket-money, is booked to the workers, so that as far as possible the patients are made to feel that they keep themselves to a large extent, and are not altogether dependent upon charity. The Hebron farm and brickfields, worked by epileptics, pay their way and leave a yearly surplus. There is accommodation for a few private patients, who pay £50 to £100 a-year, and a house for ladies of "weak nerves."

Miss Sutter well says that the backbone of Bethel is found in the spirit of her workers, the perfect surrender to a Christian ideal, and accordingly we find "Sarepta" and "Nazareth," two well-appointed homes for the training of deaconesses and deacons, or brothers. There are over 100 men and women who offer themselves yearly for these posts from the Ravensberger country alone. The deaconesses are trained to sick-nursing, parish work, and the teaching of infants; already 100 are at work at Bethel in the various houses, and 600 in other colonies. After a period of probation they are consecrated at the age of 25, and very few give up their calling after this stage. Like the members of many religious orders they receive no salary. The brothers or deacons are trained as evangelists, and sooner or later become house-fathers. Their initial duties are a hard test of their fitness for their vocation, consisting in the care of

the most demented epileptics or imbeciles. Truly these are ideal attendants!

Bethel has also in ten years placed out no less than 500 orphans in suitable peasant homes, at her expense; and in the "Kinderheim," or baby-castle, are a number of sick children (consumptives, etc.).

Labour Colony.—Many who have heard all about "General" Booth's scheme may not know that this colony has existed for ten years, that it was the pioneer of all such, and that there are at the present day some 25 labour colonies in Germany. One year after its foundation 225 colonists of *all classes* were busily working at Bethel; 620 passed through last year, and over 1,000 acres of poor soil have been reclaimed.

Mr. Berry, of the Paris Municipal Council, after visiting Bethel may well have exclaimed: "Il y a beaucoup à apprendre chez les Allemands!"

Bethel has also a *relief-station*, to assist men in finding work. In these relief-stations, of which there are many throughout Germany, a man may eat and sleep (for one day only) on condition that he does so much work, and he may hear of some suitable occupation vacant in the neighbourhood, the station acting also as an agency. The *Herbergen* are homely inns, where respectable workmen going from one town to another in search of employment may stay on payment of a very moderate charge. It is computed that since these institutions have been at work crime has diminished 30 per cent. among the class which frequents them.

Bodelschwingh is ever active. In 1888 the "Friedrichs Hütte," a home for drunkards hale or crippled, was started. The inmates are not allowed to leave of their own choice, and stay at least one year; they work, mostly in the field, garden, etc. Then there is "Eichhof," a pension for gentlemen in search of temporary quiet; here the unsuccessful or unfortunate of the better classes are taken back to nature, to the kitchen garden, etc., and often redeemed. They (or their friends) pay £80 to £100 a-year. Discipline is strictly kept; they must work (eight hours a day), and they are generally happy.

Many of Bethel's children gradually rise from the slough of despond and inactivity to a career of bright usefulness; some are given positions of trust in the institution, and as a rule fill them satisfactorily.

Workman's Home.—A witty judge once said: "Social crimes are in exact proportion to the surface of friction in our dwellings," and Pastor von Bodelschwingh believes that one great means of satisfying the unsettled condition of the working classes and to quell unreasonable socialism is to build them houses, or help them to acquire houses which they can call their own. Accordingly he has devoted his energies also to this question. Capital is borrowed at reasonable interest, Bethel acting as a surety; this is turned into a sinking fund, and paid back in yearly instalments by the workman owner. There is also a building savings fund for intending owners to subscribe to. The house is built according to the prospective owner's wishes, he can choose the workmen to build it; there is a garden to each house—in short, it is a liberal scheme. The idea is certainly a brilliant one, and so far promises to answer all expectations. Seventy houses have been built already, and out of £14,000 borrowed no less than £4,000 have been paid back.

Miss Sutter adds much which is of interest with regard to the sources of revenue, the expenses, and general management of Bethel, all testifying to the remarkable ability of its head. The last chapter, "The Message of Bethel to Ourselves," refers to what is being done in this country, and expresses a hope that some master mind, efficiently supported by a foundation of men and women (the keystone of success), may, imbued with admiration for the noble work done at Bethel, "go and do likewise." This also affords the authoress an opportunity of writing a well-founded criticism of Mr. Booth's scheme, and of exposing the defects which must mar its success. She winds up with a few well-seasoned remarks (a digression perhaps) concerning the housing of the Scotch poor and the Scotch land laws.

The illustrations of the various Bethel "homes" are superior to those generally found in books of this kind, and convey a good deal of information.

Miss Sutter has performed a most praiseworthy task in drawing public attention to this beautiful haven, and has written an interesting and charming book.

The Surgical Aspect of Traumatic Insanity. Presented for the Degree of Doctor of Medicine by HERBERT A. POWELL, M.A., M.D. (Oxon.), etc. Oxford: Clarendon Press. 1893.

There is, as Dr. Powell remarks, not much to be found in past medical literature touching this subject, and especially as regards the treatment of traumatic insanity we see but a dim outline. There are several causes (and the author mentions these) in co-operation to confirm the slowness of recognition that there is a considerable class of cases where a constant irritation is causing mental symptoms, and within ready reach of operative interference, so that every contribution to the elucidation of the question, or which impresses its importance and illustrates its progress, like this monograph, is welcome. And Dr. Powell's thesis is carefully thought out and well written.

Statistics concerning traumatic insanity and traumatic epilepsy are necessarily deficient or incomplete. The mental disturbance following upon an injury may be so slight as not to be recorded, or it may come on after a considerable lapse of time, and therefore not come under the notice of the surgeon originally in attendance (*i.e.*, at the time of the injury to the head). Hence also the statistics of various authors differ widely.

In dealing with the relation between traumatism and criminality, Dr. Powell quotes the interesting observations of Mr. Drew concerning the frequency of depressed fractures of the skull in relation to crimes of violence. Although certain mental symptoms, or groups of symptoms, are often met with in traumatic cases, it is doubtful whether we may define any special form of insanity as traumatic, and insanity may result from injury to any part of the head.

In enumerating the common local changes arising from an injury to the head: adherent membranes, arachnoid membranes, arachnoid cysts, osteophytes, etc., the author draws attention to their mostly superficial nature, and discusses the rôle probably played by the dura mater in the production of psychical symptoms. This is of great importance in its bearing upon surgical treatment, and the increasing recognition given to the frequency of deferred results is reducing the numbers of those who stay their hand till the appearance of those results.

With reference to traumatic epilepsy in relation to traumatic insanity, Dr. Powell emphasizes the opinion that it is more

consistent with observations recorded to regard the two affections as standing side by side, yet distinct, and not merely in the light of cause and effect.

Several cases are next described in which the relief by surgical operation is very striking, and a feasible explanation seems to be that the insanity was due to a suppression of mental faculties arising reflexly from a local irritant—an irritant which the operation removes.

Although the mere trephining of the skull without entering the serous cavity of the brain (a "cranial" as contradistinguished from "cerebral" interference) is a comparatively simple operation, still only a limited proportion of cases of traumatic insanity can be dealt with surgically, or are open to relief by operation—that is, those cases in which we find the existence of some local indication in a spot readily reached.

Out of 67 cases, details of which are given in tables at the end of the book (29 of simple traumatic insanity, and 38 of combined traumatic insanity and epilepsy), five deaths occurred and 41 mental recoveries; and though, as Dr. Powell remarks, these numbers can scarcely be relied upon as representing the exact proportion of fatal cases and improvement to be expected, they point to the conclusion that highly encouraging results may follow from surgical interference in traumatic insanity.

This thesis is a very good and useful piece of work.

The Inadequacy of "Natural Selection." By HERBERT SPENCER. Reprinted from the "Contemporary Review." London: Williams and Norgate. 1893.

This collection of articles, probably already known to many readers, forms a strong argument in favour of the doctrine of the "inheritance of acquired characters," disputed by so many biologists at the present day, and is a testimony to the brilliancy of Herbert Spencer as a scientific debater.

In dealing with the problems of evolution, as the author observes, we must carefully limit our definitions. Survival of the fittest, for instance, can increase a serviceable trait, only if that trait conduces to prosperity of the individual, or of posterity, or of both, *in an important degree*; it cannot increase *any* advantageous trait. "There is," he says, "a tacit assumption that natural selection can do what artificial

selection "does—can pick out and select any small advantageous trait," but it is not so.

After analyzing carefully the power of perception to touch of various parts of the body—the back, the fingers, the tip of the tongue, etc.—the only conclusion Herbert Spencer can arrive at is that the cause of the differences observed is the inheritance of acquired characters.

A further inadequacy of natural selection is also exemplified in that the relative powers of co-operative parts cannot be adjusted solely by survival of the fittest, and especially where the parts are numerous and the co-operation complex. For co-operative parts do not always vary together, as is seen by considering the cases of blind crayfish of the Kentucky caves, the giraffe, etc. After refuting the three conceivable ways in which parts may change which co-operate together in animals (during locomotion, etc.), the author again concludes that the only defensible interpretation is by transmission to descendants, and he even says, "Either there has been inheritance of acquired characters, or there has been no evolution."

We know that the crux of Weismann's theory of heredity, as set forth in his "Germ-Plasm," is the question of inherited acquired characters, and his great argument, that owing to an absence of communication between them, changes induced in somatic cells cannot influence the nature of the reproductive cells, and cannot therefore be transmitted to posterity. This view is strongly attacked by Herbert Spencer.

He first quotes Pasteur's observations pointing to the conclusion that silkworm diseases are inherited, and Hutchinson's conclusions in the same direction as regards syphilis—Weismann looks on these as cases of infection of the reproductive cells by some specific organism—microbes. This explanation may hold here, but when extended to explain cases of inherited epilepsy (the epilepsy originating in the parent through the action of a local irritant) we must confess to feeling very sceptical. Herbert Spencer then refers to the well-known case of the Earl of Morton's quagga, and to a parallel fact about pigs mentioned in the "Philosophical Transactions." To this is added the testimony of Austin Flint: "The children of white women by a white father had been repeatedly observed to show traces of black blood in cases where the woman had previous connection (i.e., a child by) a negro," and that of Mr. Fookes concerning dogs, which is to the same effect or analogous.

Undoubtedly these facts, if absolutely incontrovertible, are fatal to Weismann's hypothesis, as showing that there is none of the alleged independence of the reproductive cells. Moreover, Mr. Adam Sedgwick's observations show that the "*soma*" is a continuous mass of vacuolated protoplasm, and the *reproductive cells* are nothing more than portions of it, *i.e.*, not independent of "communication." Thus, the author concludes, is Weismann's theory doubly disproved, inductively and deductively.

Herbert Spencer says that as regards Weismann's theory of degeneration by panmixia, "not a single case can be named in which *panmixia* is a proved cause of diminution." He also joins issue with the latter in his views concerning the "primary division of labour" in cells, and while pointing to the fact that the question of the immortality of the reproductive cells of protozoa assumed by Weismann is not proved, adds that the evidence that somatic cells on the contrary are immortal is immeasurably stronger.

This is certainly a monograph to be studied by all those interested in the fascinating question of evolution.

The Blot upon the Brain: Studies in History and Psychology.

By WILLIAM W. IRELAND, M.D. Edin. Second Edition.
Bell and Bradfield, 12, Bank Street, Edinburgh. 1893.

We recorded our favourable opinion of the first edition of this work when it appeared, and are glad to see a second edition, in which the learned author has endeavoured "to keep abreast of scientific research." We are all the more pleased to see another edition of "*The Blot upon the Brain*," because it is so frequently said to be a blot upon asylum men that they rarely add to their library any work on a subject upon which, above all others, it might be supposed they would feel some little interest. The charge brought against them quite recently of lamentable apathy in regard to the scientific study of insanity would to some extent be met by evidences of their perusal of works on psychological medicine. Among the many subjects discussed in the volume before us, the chapter on "*The Dual Functions of the Double Brain*" will probably be more carefully studied than others. Those who were present at the Psychology Section of the British Medical Association, held at Leeds in 1889 will remember the interest

felt in Dr. Ireland's communication on this subject. As the author observes, "the question of the dual function of the double brain can never cease to attract and interest the philosophical mind." Although it has its obscurities and mysteries, we can read, in the advance which has been made since the time of Wigan, a promise that the ceaseless activity of scientific inquiry will go on adding to the knowledge we have already gained on this difficult subject. We had intended to discuss with Dr. Ireland another difficult question, that of the nature and seat of hallucination, and also the history of Joan of Arc, to which Dr. Ireland has devoted much time and study, but we decide to leave the readers of the book to do this.

This edition is in many respects an advance on the first. Under hallucinations the author records recent observations in regard to the excitement of one of the special senses in consequence of an affection of another, as in *audition colorée*, when a sound falling upon the ear is followed by a sensation of colour (photism). Sometimes, but rarely, the sight of a colour excites the sensation of sound (phonism). Motor hallucinations have not been overlooked, and Tamburini recalls cases in which patients feel as if they had spoken and had not done so. "The motor image of the word, or the nerve action accompanying the formation of such an image, is produced on the part of the brain employed for the motor innervation of words. There is a perception similar to that which would have been produced had the word been fairly spoken, just as in a hallucination of vision an image is presented to the mind as that of an outer object really seen" (p. 16).

There is in the chapter treating of Joan of Arc an additional note, which is interesting in giving some description, however slight, of the heroine. Her black hair was cut short, and she had a black hat on her head. "*Jehanne estoit en habit d'homme: c'est assavoir que elle a voit pourpoint noir, chausses estachées, robbe courte de gros gris noir, cheveux ronds et noirs, et un chapeau noir sur la teste; et avoit en sa compagnie quatre escuiers qui la conduisoient*" (p. 62). The fascinating and pathetic story of the maid must not, however, induce us to go more into detail.

In the chapter on *Folie à Deux* an account is introduced of a man calling himself Sir William Courtenay, Knight of Malta in 1832, but really the son of a publican in Cornwall, whose name was Thom. He influenced a large number of

ignorant people, who came to believe his assertion that he was Christ and invulnerable.

The reader will find at page 242 a defence of the author's views in regard to certain interpretations of hypnotic experience, and their bearing on unconscious cerebration, of which the author is an opponent.

Fresh cases are added in several of the chapters, notably in chap. 10, p. 271-2, cases of micropsia, and at page 326 a case illustrating the effect of shock on the memory.

We conclude by commending this new edition of a work as happily executed as it is happily christened.

Annual of the Universal Medical Sciences: A Yearly Report of the Progress of the General Sanitary Sciences throughout the World. Edited by CHARLES E. SAJOUS, M.D. London: F. J. Rebman, Adam Street, Strand. 1893.

The section on "Mental Diseases" is contributed by Dr. George H. Rohé, Catonsville, M.D. It contains a retrospect of a considerable number of works which have appeared in the journals during 1892. Notice is taken of Dr. Turner's article in the "Journal of Mental Science" on facial asymmetry. The plate accompanying the article is copied, but so coarsely executed that it is a caricature of the original. Such inartistic reproduction in a first-class work defaces the volume. We have no wish, in regard to the retrospect itself, to be hypercritical, but we can hardly award the praise to it which we have felt pleasure in giving to the corresponding section in the previous issues of the "Annual." We agree, however, with the author when he observes in his comment on Kiernan's "Art in the Insane," that "the theory that genius is a psychosis closely allied to insanity, if not insanity itself, is a great comfort to us commonplaces, who suit our actions to the conventionalities of society, and who are as far beyond the suspicion of genius as of insanity."

We congratulate the Editor on his laborious, and, as a general rule, ably conducted "Annual," which must remain a most valuable work of reference.

Outline of a Course of Lectures on Human Physiology. By ERNEST ALBERT PARKYN, M.A., late Scholar of Christ's College, Cambridge. London: Allman and Son, Limited.

We notice this little book as an indication of the vastly increased interest on the part of the public in the physiology of man, especially of his nervous system. The brain possesses an attraction for all, and it is shown by experience that popular lectures delivered by scientific men on human physiology are thoroughly appreciated so long as the mode of delivery is not at fault. Mr. Parkyn has succeeded in securing the sustained attention of thousands of persons of the middle and even the working classes in the large towns of England. Those who wish to succeed in the same work will be greatly assisted by this little book, and of course it serves the object primarily intended, of being a help to those engaged in attending the lecturer's own addresses, or those who may be auditors of other lectures on the same theme. As an outline of a subject upon which it professes to treat it may be warmly commended. If many of those who attend these or similar lectures do little more than carry away with them the knowledge that the brain is the organ of mind, and that to be kept in health it requires to be wisely treated, they will not have listened in vain.

- *Handbook for Attendants on the Insane.* Published by the authority of the Medico-Psychological Association of Great Britain and Ireland. Second Edition, revised and enlarged. London: Baillière, Tindall, and Cox. 1893.

This is not a book to review, but we desire to call attention to it. It is a model of condensed practical wisdom. Opinions differ as to the advantage of giving anatomical or physiological knowledge to the class for whom this manual is intended, and we ourselves have had our doubts. There can be no doubt, however, as to the utility of practical directions conveyed in a simple and easily understood form.

We have no doubt that this handbook will meet with a wide circulation. The printing and general get up of the book are all that can be desired.

It reflects great credit on the Committee of the Association, upon whom the burden of its preparation was laid.

Return, East India (Consumption of Gánja), ordered by the House of Commons to be printed 3rd March, 1893.

The most important paper in this Blue Book is a report on the cultivation of and trade in *gánja* in Bengal, by Mr. Hem Chunder Kerr, and an article on hemp or *cannabis sativa*, by Dr. Watt, C.I.E. Hemp, everywhere known for its useful fibre, is grown in most countries of the world; but in India the flowers of the plant exude a resin which has powerful effects upon the nervous system. Its narcotic propensities are mentioned in the "Vedas" and the "History of Herodotus." Whether this drug is more used than formerly does not appear, but it has now become a subject of inquiry by the Indian Government whether its effects are sufficiently widespread to justify the Government interfering with its sale. At present there is a Commission in India which is prosecuting an investigation on the subject.

The drug is used in four forms: *gánja*, the dried flower head; *charas*, the resinous exudation from all parts of the plant; *bhang*, a liquid extract which is drunk; and *majum*, a confection made from *bhang*. These preparations are used for much the same purposes as people take wine or spirits in Europe. Indian hemp first produces a pleasant excitement, then a torpor of the intellectual faculties, followed by depression. *Charas* and *gánja* smokers are more inclined to be irascible and violent than those who use the other preparations.

There are a number of reports from the police as to whether indulgence in this drug is a frequent cause of crime. Apparently it is much less liable than alcohol to induce men to commit violent actions. Occasionally men nerve themselves to do criminal deeds which they had already determined upon, and there are instances in which murderous assaults have been made under its influence. The evidence that Indian hemp is a potent cause of insanity is much stronger. When taken in large doses it sometimes induces a state of maniacal excitement, with hallucinations and delusions. It seems to be the most frequent cause of insanity in the asylums of the Bengal Presidency. Patients suffering from the abuse of this drug are not so often met with in the Madras asylums; but this is probably owing to its use as a stimulant being less common in that Presidency.

There is some diversity of opinion whether the moderate use of Indian hemp is injurious; but, as Dr. E. G. Balfour has observed, "it is quite possible that the reporters, who believe that the prolonged use of hemp is innoxious, may have only seen cases in which the milder preparations of the plant were indulged in. That confirmed *gánja* smoking is injurious to the mental faculties and nervous system seems beyond all doubt; but, from what we know of the results of the habitual use of other narcotics and stimulants, it may certainly be inferred that the confirmed smoker is not content with moderate doses of the drug. In the case of every one of this class of narcotics, habit gradually reduces their stimulant or narcotic effects on the system, and thus as the practice is continued the dose must be increased to produce the desired effect. It is in this gradual increase that the great danger lies, and, were it possible for those addicted to such vices never to exceed in quantity or number the doses which can be tolerated by those unaccustomed to their use, there is nothing to show that indulgence would be injurious. When the appetite is once fully acquired, however, such control is extremely difficult, and the habits of opium eating and *gánja* smoking would appear to be even more seductive and less amenable to the dictates of reason and the influence of the will than spirit drinking."

Though it appears from the report that the bad effects of Indian hemp upon the population are in many districts very serious, it would be most difficult to restrict the use of the drug. In many places it grows as a weed without any cultivation, hence its sale could scarcely be checked, save in the towns.

Its effects upon the nervous system are so powerful that one is inclined to suggest a more extended trial in the treatment of insanity. Theoretically one might suppose that it would be useful in melancholia, as it has the effect of raising the spirits and increasing the appetite. This latter is a valuable property which does not seem to have received sufficient attention. We have several times used it with good effect in puerperal mania in doses of one drachm of the tincture with one drachm of bromide of potassium, as recommended by Dr. Clouston. We believe that Dr. Clouston now uses smaller doses.

Naturgeschichte des Verbrechers. Von Dr. H. KURELLA.
Ferdinand Enke, Stuttgart. 1893. Pp. 284.

Dr. Kurella may be congratulated on having written for the use of the alienist, the lawyer, and the prison official the best summary of the facts of criminal anthropology and psychology which has yet appeared. His success is by no means entirely due to the fact that he has been the latest to enter the field, and has thus been able to incorporate the results of the most recent investigations, and to take advantage of the mistakes as well as of the experience of his predecessors. It is chiefly due to his own mental qualities; he is at once receptive and judicial, sympathetic towards new facts, but very cautious in touching new theories, while he possesses the art (by no means common in Germany) of concise, lucid, and attractive presentation. It is to these qualities rather than to any important new facts that the book owes its value; for, although, as superintendent of the provincial asylum at Brieg, Dr. Kurella has had ample opportunities for studying the insane and criminal insane, and briefly records from time to time the statistical results of his observations, he has had little opportunity of investigating the criminal pure and simple.

The book, after a brief introduction, is divided into four chapters. The first deals with the anatomical varieties found in the criminal; the "primatoid" characters (as the author prefers to call them, in order not to prejudge dubious questions, instead of "atavistic") found chiefly in the skull and brain; then with the varieties in rudimentary organs (external ear and mammary glands); varieties in the secondary sexual characters (growth of hair, etc.); varieties in multiple organs; varieties caused by arrest or disturbance of development (microcephaly, hypospadias, etc.); and acquired characters (colour of skin, etc.). Chapter II. deals with the biology of the criminal, and the biological factors of criminality: nutrition, sensation, invulnerability, heredity, recidivism, physiognomy, etc. In this chapter the usual character of the vaso-motor reactions in criminals is discussed (as we should expect in the translator of Lange's remarkable work on the basis of emotion), although briefly, in an admirable manner, and it is shown how the vaso-motor torpidity of the criminal and his defective sensibility form the physiological foundation of his cruelty and lack of compassion. In the same chapter the author touches with

a light but sure hand the theories of those who imagine that criminality is a purely social phenomenon, and think that they have proved this by producing charts to show the parallelism of crimes and poverty; "to argue, from the dependence of variations in criminal statistics on variations in the price of wheat, that insufficient food is the cause of crime, is much the same as to argue that changes in blood pressure under the influence of digitalis show that digitalis is the cause of the circulation."

The third chapter, dealing with criminal psychology, is much shorter, and, perhaps, slighter than we are entitled to expect. This is, however, probably largely due to the author's preference for concrete facts that can be stated statistically over merely general statements and anecdotes. It contains a good and full account of criminal slang. The last chapter, on theories and applications, is, characteristically, very short, only occupying twelve pages, but it contains much that is valuable and suggestive. Dr. Kurella accepts the amalgamation of so-called "moral insanity" with congenital criminality; the morally insane individual does not concern the alienist as such, but the criminal anthropologist and psychologist, and must be dealt with on the same footing as any other criminal. It may be added to Dr. Kurella's remarks on this point, that to accept this view is not to diminish the debt which we owe to those who were the first to study and define the clinical group of "morally insane" individuals. Dr. Kurella refuses to accept the theory of a special connection between criminality and epilepsy, although frequently associated.

The book is well illustrated by some seventy figures, new and old. There are a few misprints and slight errors of detail, which might with advantage be corrected in a new edition. The question of the translation of the work into English is understood to be under consideration, and it is certainly to be hoped that this will be carried out.

Die Medicin der Naturvölker. Von DR. MAX BARTELS.
Leipzig: Th. Grieben. 1893.

The author of this book is well known as the editor of the recent editions of Ploss's great work, "*Das Weib*." He has here produced a careful and sufficiently full ethnographic study of medical science among primitive races. Dr. Max

Bartels is admirably qualified to undertake this task, which has never been attempted before except in a slight and perfunctory manner, and he has well succeeded in presenting his material (which largely consists of facts furnished by travellers and anthropologists) in an attractive as well as scientific manner. It is remarkable how many subjects of living interest call for consideration when we are dealing with primitive medicine. Not only have we to deal with matters that concern the antiquarian and folk-lorist—with amulets, the evil eye, sacrifice, prayer, exorcism, and all the rites and operations of the medicine man—but we also encounter hypnotism and suggestion, massage, inoculation, and the beginnings of nearly every medical and surgical method flourishing in civilization. Of great interest is the chapter on the nature of disease as understood by savages, and of the notions underlying primitive methods of treating disease. It is scarcely necessary to say that we are constantly brought near to various morbid mental phenomena. Insanity and epilepsy are dealt with, although not at great length, and an authoritative account is given of various epidemic and other nervous disorders. The book is illustrated by 175 original figures. It is satisfactory to learn that there is some prospect of its translation into English.

Abnormal Man: Being Essays on Education and Crime and Related Subjects, with Digests of Literature and a Bibliography. By ARTHUR MACDONALD, Specialist in the Bureau of Education. Washington. 1893.

This book covers an extensive field in criminology. As is well known, the author belongs to the Lombroso school, the extreme views of which have not found favour in this country. It is to be regretted that the caution which a scientific spirit cultivates is not more apparent in the conclusions at which the disciples of this school arrive. It would be easy to point out the loose generalizations indulged in. The reader will, notwithstanding, find a good deal of matter which, judiciously sifted, is of value. The great point is not to permit fine theories and pseudo-scientific statements to interfere with the recognition of responsible crime, and the punishment which it demands both for the public good and in the interests of the criminal.

There are a number of statistical tables, showing among

other things the relative increase of crime to the population in different countries, and the amount of education, etc., which are important. The author admits that "as far as statistics are concerned, the exact relation between education and crime is unknown." It is true that "a majority of countries show an increase both in education and crime, yet not a few, and some of the most developed nations, show an increase of education and a decrease in crime."

We must, however, content ourselves with referring the reader to the more striking facts and conclusions contained in Dr. Macdonald's essays.

A very elaborate and useful bibliography of works on abnormal man, classified under various heads, is given. This alone would render this book of great value to medical psychologists.

Hypnotisme et Suggestion ; étude Critique. Par W. WUNDT, Professeur à l'Université de Leipzig. Traduit de l'allemand, par A. KELLER. Felix Alcan, 108, Boulevard Saint Germain, Paris. 1893.

We have in a former number of the Journal (January, 1892) given an abstract of Wundt's researches in hypnotism. The little book before us is a French translation of Wundt's article. It is an advantage to have it in this form. It is needless to say that the learned professor carefully guards himself against being supposed to give credence to any of the alleged facts of occultism. Having thus cleared the ground, he observes: "Certainly, hypnotism is to be regarded quite differently. Here we are concerned with phenomena, the interpretation of which doubtless remains somewhat uncertain, but the reality of which, with the exception of certain details, can no more be disputed than the existence of dreaming or sleep-walking." Again, "If our present knowledge of hypnotism still presents some *lacunæ*, these have less to do with the fundamental phenomena than their psychological and physiological explanation." He regards it as proved that "Suggestion, whether practised by words or by acts calculated to suggest ideas, is the principal, if not the only cause of hypnotic conditions. Other influences, such as fixing the attention upon a certain object, facilitate the action of suggestion by increasing the aptitude to receive it, or are themselves a practical suggestion of sleep."

It is unnecessary to do more on the present occasion than to refer the reader to the former review in this Journal. Wundt's thoughtful and philosophic study contrasts strongly with the superficial and ignorant observations with which the subject is even still so often treated.

The Law of Psychic Phenomena. By THOMSON JAY HUDSON.
G. P. Putnam's Sons, London. 1893.

The author is honest, and has laboured hard to put the reader in possession of facts, real or alleged, in regard to the range of subjects included under hypnotism and that which has no real connection with it, so-called spiritualism. We cannot commend the book as a scientific production, and in fact the larger part of it falls under occultism. We might say of the 400 pages of the work, that what is true is not new, and that what is new is not true.

Forensic Medicine and Toxicology. By DIXON MANN, M.D.,
F.R.C.P. Charles Griffin and Company, London. 1893.

The only chapter in Dr. Dixon Mann's exhaustive work which falls to our lot to notice is that on the "Types and Medico-Legal Bearings of Insanity," covering about 60 pages. It is a very fair sketch, necessarily brief, of mental disorders. To expect a detailed description of insanity would be unreasonable. The section on "Criminal Responsibility" is good, but would have been better had the author studied the article on the subject by Dr. Orange in the "Dictionary of Psychological Medicine," which appeared some time before Dr. Mann's publication.

Joan of Arc. By Lord RONALD GOWER, F.S.A. London:
John C. Nimmo. 1893.

Though there is no lack of original documents, some facts in the life of Joan of Arc are often incorrectly stated by historians. They have long been content to follow one another, and errors are slowly eliminated. Nevertheless, the change in the attitude of English writers, from Hall and Holingshed to Lord Ronald Gower, amounts to a complete turn of face. The coarse abuse of the old English chroniclers is changed into enthusiastic admiration. Not only has Lord

Gower consulted the original documents, but he has visited all the places on the track of the heroine, from her birth-place at Domremy to the old market square at Rouen, where her short but glorious career was ended. The book is well printed on good paper, and enriched with ten engravings of places memorable in the life of the heroine, such as the Tour Coudray at Chinon, the Cathedral at Rheims, and some old houses at Compiègne. The author makes much use of the *procès de condamnation* and *procès de réhabilitation*, first published by Quicherat, and translated from the Latin by Fabre. These throw light upon the life of Joan of Arc from her childhood. Lord Ronald Gower shows a warm enthusiasm, with which most people will sympathise. His partiality for the heroine is observable from the beginning. He tries to prove that Joan's father was not a labourer, but the proprietor of thirty acres, twelve of which were arable, from which, we are told, he derived an income of £200 a year. This is somewhat better than they can do nowadays. Besides this, Jacques Darc held an office which, Lord Ronald tells us, tallied with that of the Procurator-Fiscal in Scotland.

While Lord Ronald has written an interesting biography, one might wish that he had more of the inquiring mind of the philosopher. The readers of this Journal will be ready to inquire what explanation does he give of the visions and voices which caused the village maiden to set out upon her eventful mission? Lord Ronald, however, contents himself with quoting a passage from a contemporary, the Bishop of Lisieux, who wrote: "As regards her mission, and as regards the apparitions and revelations that she affirmed having had, we leave to every one the liberty to believe as he pleases, to reject or to hold, according to his point of view or way of thinking." We do not think that in this inquiring age even the ordinary reader will be satisfied with the biographer keeping so wide of the question. If Lord Ronald Gower had no explanation to give, he might have given a fuller statement of the character of these apparitions. It is a common error of historians to state that Joan's mission ended when she led Charles VII. to be crowned and anointed at Rheims, that after this she wished to return to her home, and was only induced by the politicians to continue to give her aid to drive the English out of France. This seems like a historical myth, intended to throw a cloak over her subsequent failures. There is no doubt whatever

that she gave out that her voices encouraged her to drive the unwilling King to approach Paris with an army which apparently was not strong enough to lay siege to such a well-fortified city. One can readily understand how the failure of this attempt aroused misgivings and doubts about her pretensions to heavenly aid, and caused the King and Court to be chary of being led into further undertakings. Her own enthusiasm seems never to have abated. Lord Gower gives a long account of her imprisonment and trial, and shows a commendable indignation at the brutality of her captors and the cruelty of her judges. It is worthy of note that of the ninety-five assessors who took part in the trial only two were Englishmen. The whole process is pitiable to read; but one thing is to be borne in mind, that the English really believed her to be a witch. The French party believed that she was sent by God to deliver France, the English and Burgundian party that she was instigated by Satan, and in those days men had a vivid belief both in God and the devil. See how the greatest dramatic genius of England represents Joan as a wicked and vile sorceress, whose only virtue is a patriotism which rises to sublimity when she cries to the fiends who are going to desert her —

“Then take my soul; my body, soul, and all,
Before that England give the French the foil.”

Joan was, therefore, one of the hundreds of thousands of poor women who suffered death under the frightful delusion about witchcraft, which slew its victims down to the beginning of last century. The author severely condemns the lukewarmness of the French King in making no endeavour to rescue Joan after she was taken prisoner. He thinks that the *procès de réhabilitation*, which was instituted twenty years after her death, was set about for entirely selfish reasons. But although we may allow something for the play of political motives, it is too much to assume that Charles VII. was so utterly destitute of all feelings of gratitude that he had no desire to free Joan's reputation from the condemnation of being a witch, which aroused blinding fear and hatred in those times. In the course of her examination before the judges, Joan was led to state that when she was at Chinon the Archangel Michael, accompanied by a number of angels, came to her lodgings and took her to the Castle of Chinon, bearing a gold crown, which he placed on the head of the Dauphin. After this the angel disappeared, but the crown remained in the royal treasury. This statement, made in a

circumstantial manner, must either have been a delusion or a bold invention. We are not sure that Lord Ronald Gower tells the story in such a way that ordinary readers would be likely to notice its full significance. He says: "She seems, poor creature, half-dazed and bewildered by her sufferings and her tormentors, to have mixed up in her mind and in her replies the actual event of the King's coronation at Rheims with her angelic visions and voices, for to her one must have appeared as real and actual as the other."

This is not the only instance in which the pardonable partiality of the author detracts somewhat from the life-like character of his portraiture. A little shading is needful for a good picture: perfection is not human. The biographer of Joan of Arc has to describe a character, heroic, yet partaking of the feminine type, and we think that Lord Ronald has left out some traits which might have been put in to complete the portrait. At the same time we heartily join with him in his devotion to the heroine.

Gedenktage der Psychiatrie und ihrer Hilfsdisciplinen in allen Ländern. Von Dr. HEINRICH LAEHR. Berlin. 1893.

We welcome the fourth and enlarged edition of this useful work, and offer our hearty congratulations to the veteran German alienist on the occasion. The amount of labour bestowed upon it is great, and the international character of the work no doubt accounts for the encouragement it has received and which, we trust, will be continued.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect.*

Asylum Reports, 1892-3.

In taking up our annual task of reviewing *Asylum Reports* we think it well to consider them in classes. We are thus able to notice points of common interest. We commence with the

English County and Borough Asylums.—It is impossible to read the reports without coming to a conclusion that year by year steady progress is being made. In one important respect, the relation between visitors and staff—so well summarized by Dr. McDowall at the British Medical Association meeting of 1893—there is ample evidence of the existence of mutual confidence, respect, and good feeling. When to this are added a recognition

on the part of the Commissioners of good intentions and good work, and on the part of the Visitors and the staff a desire to benefit by the widespread experience of the Commissioners, we rest assured that our asylums will keep their pre-eminence over those of other nations. It is true that here and there the interchange of compliments in the reports of each of these bodies is confined to dry and precise expressions, but certainly most Visiting Committees and most Medical Superintendents use words of genuine acknowledgment of goodwill. We note, too, in several reports expressions of satisfaction recorded by Guardians when visiting the patients of their respective unions. We attach the greatest possible importance to the maintenance and spread of this satisfaction. In proportion to the interest and knowledge acquired by such outside bodies will be the interest and knowledge displayed by the general public, and the cheerfulness with which the latter will fall in with schemes of improvement. We have no doubt on one point—that in many cases where improvement is slow the chief cause thereof is a feeling on the part of the Committees that they are bound to keep the rates down. But if the ratepayers come to know that the true interests of all concerned lie in the direction of well-considered liberality, Committees will have their hands much strengthened.

We would wish here to urge again the desirability of all Medical Superintendents adopting in extent and order the statistical tables of the Medico-Psychological Association. We confess that the task of formulating columns of facts and figures for this purpose is a heavy drain on the time that can be spared from asylum duties, but, surely, there is the compensation of feeling that each has done his part to favour progress, slow though it be, towards solving questions of the highest social importance. We are not all delighters in statistical studies, but some are, and in our opinion do real service to humanity by such studies. To such it is very disheartening to find it impossible to establish conclusions that will apply to the country at large in consequence of there being here and there a hiatus in returns. We wish, too, that all Superintendents would in their reports give, as many do, their personal views on questions of interest. These asylum reports are the *only* places to which the profession and the public can look for guidance by those who have the best title to speak authoritatively on lunacy matters.

Bedford, Hertford, and Huntingdon.—This asylum, like too many others, is overcrowded, and there appears to be no prospect of a diminution of claims for admission. The residents have risen in number from 917 in 1887 to 1,050 in 1892. No wonder, then, that the Committee contemplate a necessity for amending the original agreement between the three contributing counties. If this should take place, so much the better, we think. The necessity for studying the ideas of three County Councils must destroy a

good deal of the unity of purpose which is so requisite in the handling of a large asylum. The Commissioners urge an increase of staff, as the Medical Superintendent and two Assistant Medical Officers are overtaxed.

Berkshire.—There will be nearly one hundred vacant beds when the new hospital is opened, on which fact we congratulate all concerned. Dr. Murdoch starts the year with 10 curable and 18 doubtfully curable cases, out of 545 cases resident. He points out that in four cases only out of 114 is there reason to attribute the insanity to intemperance, but that general paralysis accounts for 11, which is certainly a large proportion for an agricultural population. In view of this fact we would suggest that more detail should be used in the tables showing forms of insanity in admissions, etc. 74½ per cent. of residents are employed. Dr. Murdoch, notwithstanding this large proportion, has cause for surprise in the reluctance of many to work, and for still more surprise at the number of relatives who object to patients working. An obvious reminder to the latter is that the least they can do, when they accept the money of others for the care and cure of those in whom they are interested, is to help and not hinder in lightening expense.

Birmingham City. Winson Green.—This asylum is quite full, as is the second asylum at Rubery Hill. Dr. Whitcombe considers that this is due to the normal increase of population and to the accumulation of chronic cases. The admissions were of an unsatisfactory character, but one-tenth were cases of general paralysis, 38 males and 7 females. Nevertheless a recovery-rate of 47·2 was obtained. The death-rate is very heavy (13·8), but is explained by the relations of this asylum to that at Rubery Hill, where the long-lived chronics are sent. The average of the two taken together is 9 per cent. This is a good example of the ease with which figures taken by themselves may be misread. Taken altogether this is an asylum where movements in and movements out are active, and where the acute element is but little diluted by the chronic. In consequence risks, anxieties, and difficulties abound, and have to be met.

It is only by taking extreme precautions that such accidents are minimised; and fortunately they are not of common occurrence. Nothing shows so forcibly that you have recognized this as the fact that during the last ten years, with a smaller resident population, you have doubled your staff of nurses and attendants; and I am only just in observing that all precautionary suggestions I have made have been most willingly adopted by you.

Birmingham City. Rubery Hill.—At this asylum as at Winson Green the training of attendants and nurses for the certificate of the Association is very actively carried on. Ten passed from here in May. The Committee gives each successful candidate a medal.

Bristol City.—Dr. Benham seems now to be emerging from the

troubles of rebuilding and reorganization. The large hall is now in use by about 460 patients, 137 having meals in the wards. No accident whatever has befallen a patient in consequence of the very extensive building operations—a sure evidence of forethought and discipline. Bristol seems to be peculiarly favourable to the development of general paralysis.

	Male.	Female.	Total.
Admissions	106	77	183
General paralysis in admissions ...	20	1	21

In comparing the startling proportion among males with the probable causes (Table VII.) we see that general paralysis is assigned as a cause, as is also the case with epilepsy. No doubt there is room for difference of opinion as to where the exact line between cause and effect is to be drawn in our studies of the physical basis of insanity, but we would point out that at present the majority adopt the view of general paralysis being a result. In this instance of extreme production of the disease we should have liked to have quoted the proportions of suspected causes—intemperance both in drink and sexual—but Table VII. does not follow the lines accepted by the Association.

Bucks.—The reduction of the rate of maintenance from 9s. 4d. in 1890 to 7s. 10½d. in 1892 seems to be very considerable, and has been the cause of some discussion. The former rate was undoubtedly above the average of purely agricultural counties, while the latter is below that average, and must demand great skill and management in securing efficiency. No doubt the large number of chronic residents in the asylum would admit of more economical treatment than would be the case with a greater proportion of recent and acute patients. We note that the names of private patients are given in full. Would not initials serve as well for identification by the authorities?

Cambridge.—The Commissioners among other matters advert to the necessity for appointing a *locum tenens* to take the place of either of the two medical officers who may be away for more than two days. We believe, if our memory is not deceptive, that it is only of quite recent years that the medical superintendent has had an assistant at all. We cannot believe that it can be good for either doctors or patients to restrict the former's undoubted right to a liberal freedom from the cares and worries of asylum life, and restriction there must be if either knows that by taking a holiday, however brief, he is casting an undue burden on his colleague. Now that so much clerical work is added to the other duties of the staff, it seems time that a second assistant medical officer should be added. This would obviate the hardships above mentioned.

Carmarthen.—This asylum is very full, and more room is called for. The Commissioners advise against any cases being sent to the workhouses of the unions contributing. We note, too, that

the Commissioners protest against further delay in appointing a third medical officer. The average residence of patients is 560. There has been only one case of general paralysis in 49 male admissions. This immunity is remarkable, considering that such busy centres as Carmarthen and Llanelli contribute. 17 per cent. of the admissions were due to drink.

Cheshire. Upton.—On account of the crowded state of this asylum the Committee found it to be necessary to send a circular to the contributing unions requesting that chronic and incurable cases should not be sent. This had an effect for a time, but not for long. No less than 16 patients died within one month of admission. A very considerable profit has accrued from out-county patients, which has been handed over to the County Council. We speak of this matter under the head of the Parkside Asylum. Dr. Davidson speaks very regretfully of the character of many of the admissions, several being practically moribund. We note that 22 out of 170 admitted were over 60 years of age. About one-seventh of the admissions were due to intemperance, and about one-fifteenth suffered from general paralysis. The weekly cost was 6s. 10½d., the lowest, we believe, in England.

Cheshire. Parkside.—Very interesting to many will be a special report containing a lucid judgment of Justice North on a knotty point of county law. Briefly summed up the case was thus: Up to the time of the passing of the Lunacy Law (1890) the Visiting Committee had accumulated the respectable sum of £5,674, profits from out-county and private patients. Under the old Acts they might have disposed of this in various ways. But the new Act prescribing a different form of treatment of profits caught them with this nice sum at the bank. The new visitors could not apply it under the old Act—it was too late, while they did not care to apply it (without judicial direction) under the new Act, as it had been earned under the old Act. So a friendly suit was commenced between the County Council, the Committee of Visitors, and lastly the various contributing Unions. It is a little difficult to see what chance the latter bodies had of getting a slice. One threw up the action *in limine*, the others only got part of their costs. The Council and Committee, between whom in reality the question rested, got their full costs. The Judge decided that the Council was entitled to the sum. This action, the taxed costs in which reached £889, beyond deciding the limited question as to a particular sum, has caused a clear definition by a judge of the relations between county and union. Having to decide to whom the sum belonged, he said, "In my opinion it belongs to the persons who have found it." The county found it by making a profit in the provision of buildings, attendance and maintenance supplied to non-union patients. We may conveniently refer here to a point that is mentioned in several reports—the effect of "*Queen v. Dolby*." By the judgment in this action

He further proves his argument by the following figures:—

Pauper Lunatics in the County.

		In Asylum.		In Workhouses.		With Relatives.
1851	...	43·5	...	20·5	...	35·9
1871	...	72·1	...	13·9	...	13·9
1891	...	79·6	...	11·6	...	8·7

He attributes some effect, but not much, to the weekly grant first given in 1873, and the above figures show that the great change of tide towards the asylum had occurred before that time.

Also he thinks that the Lunacy Act, 1890, has begun to have some effect, in that it tightens the conditions under which lunatics can remain in workhouses. If local authorities have to go to the trouble of getting a magistrate's order and a medical certificate, they probably will think it more worth their while to take the patient right off to the asylum.

All these considerations, though not necessarily applicable to other localities, are worthy of careful study.

Cumberland and Westmorland.—As usual the report of this asylum contains much that is both interesting and valuable. The recovery-rate is satisfactory, while the death-rate is very considerably below the average of asylums. In both respects Dr. Campbell claims that he can show a better record than asylums over the border, "even though their modes of treatment and results are by some frequently commended, rather at the expense of the institutions of the sister country."

Following the example of his predecessor, who summarized the statistics from 1862-72, and his own practice as to the years 1872-1882, he now gives similar results from 1882-1892.

For these three decennial periods the figures are:—

	10 years to 1872.		10 years to 1882.		10 years to 1892.	
Recovery rate...	39	...	47·3	...	44·1	
Death-rate	...	7·6	...	8·1	...	8·9

The following figures appertaining to the percentages of certain types of insanity among the admissions afford food for reflection:—

	Ten years ending 1872.		1882.		1892.	
	No. of Cases.	Per-centage.	No. of Cases.	Per-centage.	No. of Cases.	Per-centage.
Senile Insanity * ...	25	2·7	50	4·2	97	6·3
Congenital Insanity ...	38	4·2	36	3	27	1·7
Epileptic Insanity ...	51	5·6	44	3·7	76	4·9
General Paralytic Insanity	85	9·3	74	6·2	76	4·9
Puerperal Insanity ...	75	8·2	100	8·4	27	1·2

We doubt whether Dr. Campbell is justified in saying that the decrease in general paralysis speaks well for the habits of the community. Are we so far on in the etiology of the disease as that?

* Senile Insanity above 70 years of age.

He thinks that periods of prosperity are more conducive to insanity than periods of depression. If we remember right, when Dr. Yellowlees was at Glamorgan far back in the seventies he also expressed his opinion on this point. Dr. Campbell puts it thus, "It takes time even to acquire the art of spending money judiciously, and in such a way as not to injure its possessor."

He finds that, as a result of habits of life, intermarriage and mixture of races, districts have a habit of sending cases of one type; only, *e.g.*, melancholia from one, cut-throat cases from another.

Denbigh, Flint, Anglesey, Carnarvon, Merioneth.—Urgent need is felt and acknowledged for immediate increase of accommodation. Nearly 100 patients are boarded out in four other asylums. This is a hardship on many in every case where boarding-out has to be resorted to, but is peculiarly so here, for, as is pointed out, it is difficult to find a sufficient number of patients who can speak English. There is a difficulty in coming to a conclusion as to the manner in which more asylum accommodation is to be made, whether by building on to the present one, or by building a second one in one of the remoter counties. The majority of votes are for addition, and it is urged that if a second asylum is built such a course would legitimately lead to a dissolution of the union between the five counties. This in itself would waste precious time. An appeal to the Secretary of State is threatened by the Commissioners.

Forty-two of the staff have passed the examination of the St. John Ambulance Association. We trust that a substantial proportion of these will present themselves for examination and certification by our Association. Trial with relatives in cases of doubtful prognosis has been as a whole successful, 16 having been returned on discharge as recovered and eight improved. There can be no question as to the propriety of pushing the experiment as far as safety will admit. The report does not state whether in these cases the pecuniary provision of Sec. 57 was made use of. We presume that it was so, but it would be interesting to know, and to what extent. Success has not followed attempts to return chronic cases to workhouses under Sec. 25.

Derby County.—Considerable additions and alterations are about to be made here. Among others are additional infirmary blocks, a new house for Dr. Lindsay, etc. The Committee protest against groundless complaints being made about the treatment of patients, two of which were fully dealt with, exposed, and apologized for. It is a gratifying sign of advancing interest in lunacy matters that a deputation from a Board of Guardians should make the following record of their views:—

As a deputation of Guardians from the Burton-on-Trent Union, we desire to place on record our appreciation of the efforts that have been made to improve both the appearance of the premises and the condition of the patients since our

last visit. We also desire to urge upon the Asylum Visiting Committee of the County Council to take steps to increase the accommodation of the asylum, and to make the institution more in accordance with the requirements of modern times, especially by providing additional infirmary accommodation, and improving the ventilation and warming of the wards.

A thorough remodelling of the sanitary arrangements has been carried through both in the matter of drains and ventilation, while Dr. Lindsay anticipates better health and a diminished death-rate from an improved warming system. Dr. Lindsay suggests the erection of a cottage or cottages on the estate for the reception of private cases.

Deaths from general paralysis are fast rising in frequency, while those from consumption have dropped. Great success has attended the institution of Ambulance Classes, 59 being successful in obtaining certificates, only three being rejected. These classes are being followed up by those prescribed for the certificate of our Association. The Technical Instruction Committee of the County Council contributed towards the expenses.

Derby (Borough).—There is no fear of further accommodation being required for borough patients for a long time to come. Over one-third of the patients, who now about comfortably fill the asylum, are out-county and private. A very large proportion of admissions (34 to 121) was ascribed to alcoholic excess, taking admissions and readmissions together, while Dr. Macphail informs us that 80 per cent. of the readmissions during the last four years were due to this cause. It would be interesting, though doubtless impossible, to decide whether the majority of these latter cases drank because their control was injured by a former attack, or whether a moderate amount of drink acted prejudicially on the predisposition acquired. Probably both weak control and irritable brain had a share, but in any case such impressive figures confirm the wisdom of everyone leaving an asylum being urged to relinquish alcohol in every shape, except under direct medical orders.

We are glad to append the following extract:—

It is no small satisfaction to me to be able to state that year by year this institution is becoming more appreciated as a hospital for the cure of disease, as well as valued in its function of taking care of the chronic sick. The prejudice against asylums which unfortunately still exists is gradually disappearing, and the public are being educated to recognize the physical basis of insanity, and all that this simple doctrine implies. In this town, at all events, I am glad to say that the views of a considerable portion of the public respecting the treatment of the insane have been widened and remodelled since the asylum was opened four years ago.

Devon.—The accommodation here needs to be increased, in view of probable crowding before new buildings would be ready. The Commissioners paid an unusually early visit this year in order to advise with the Committee on this point. Two of their reports appear, and we are glad to notice more unanimity between Dr. Saunders and the members of the Lunacy Board than existed in

1891. It seems probable that extensive additions will be made in all directions of the building and its dependencies, which the Commissioners think will avert for many years the building of a new asylum.

Dr. Saunders recommends the renting of some roomy house for the reception of convalescents.

Some excellent charts show in very plain fashion the steady increase in asylum population since 1847, the percentages of deaths and recoveries, and the variations in weekly charges from year to year. In the deaths the cholera year (1866) shows up plainly among the males, reaching 25 per cent., while the female rate went down slightly. But this high mortality did not prevent the recovery-rate for males rising in that year, though next year there was a fall of a clear ten per cent. In the recovery chart a most startling rise from 42 per cent. in 1872 to 75 per cent. in 1873 followed the closing of the asylum in the latter year to all but acute cases. In 1874 there was a still more abrupt fall to 36 per cent. As in its neighbour, Cornwall, so here the influence of alcohol as a causative agent is considerably below the average.

Dorset.—Large additions are being made here, tenders for no less a sum than £52,000 being accepted.

Dr. Macdonald estimates that 70 per cent. of his admissions were hopelessly incurable. This fact has left its mark on the recovery-rate, and its effect will be carried on no doubt into this year. He does not join in the cry against old cases being sent to the asylum instead of to the workhouse. He recognizes that in all such cases sent to him, bar one, actual mental disease existed requiring asylum nursing. He points out that the old and chronic are not always the most suitable cases for workhouses, as they are often feeble, require skilled nursing, and are noisy at night. But while he is thus considerate about such cases he very rightly inveighs against the practice of sending acute cases to the workhouse, of which he apparently has had good cause to complain. Like most of the counties in the south-west, Dorset has little of its lunacy to ascribe to alcohol, and Dr. Macdonald utters strong but perfectly justifiable sentiments on the possibility of diverting by exaggeration public attention from more worthy subjects of study in relation to insanity. Respecting the treatment of idiots he appears to be of exactly opposite opinion to his neighbour, Dr. Worthington, in Hants. In pronouncing against a separate institution for such cases he is, in our opinion, wrong. Darenth has its two separate asylums for chronic patients, and we are sure that the experience gained there is in favour of separate treatment of idiots, provided a sufficient number can be got together.

The following paragraph fully expresses our views as to the aims and results of training. Dr. Macdonald deserves credit for insisting on training being a precedent to promotion, and, indeed, a condition of continuance in the service:—

As in former years a course of lectures was delivered to the nurses and attendants during the winter months, and we have reason to be satisfied with the result of our labours. One object in view in giving these lectures is, as far as possible and practicable, to build up a recognized service, so that no member of the staff will attain the position of full nurse or attendant until they have passed through the necessary course of training. As this entails a considerable amount of extra work, not to say absorption of spare time, only those are continued in the service of the asylum who are considered suitable and are willing to remain a certain time. We hope by this mutual and voluntary arrangement to reduce the number of changes, and to always have for duty an ample staff of trained nurses and attendants.

Durham.—There seems to be some congestion here, which will be temporarily remedied by the erection of two iron infirmary blocks. In his report Dr. Smith notices that more pitmen than usual have been admitted, possibly as a consequence of the coal strike of last year. One case recovered after eighteen years' treatment. As usual, general paralysis is an important factor both in admissions and deaths, 49 in 407 admissions, and 48 deaths in 159, the average death-rate being 12·9. We note two recoveries from general paralysis. Dr. Smith likewise draws attention to the prevalence of phthisis, 34 as against 21 in 1891. He insists that it is a preventable disease favoured and fostered by overcrowding, bad ventilation, etc. Also he points out that it is infectious. "As a matter of fact several nurses have within the last few years contracted the disease here, and more than one has died." The table of professions or occupations displays a wonderful variety of callings which have contributed in small numbers to make up a total of 407 admissions. Only pitmen (40), labourers (56) among the men, and domestic servants (17), housekeepers and housewives (101) among the women, and persons of both sexes with no occupation (56) run into double figures, the remainder being split up in nigh 80 varieties.

Essex.—Superabundance of claims for admission into this asylum has led to the renting of large houses about the county as overflows. We can imagine that if circumstances permit their being used as testing places of convalescence as well as store-houses there may be in this direction a set-off against the inconvenience and waste of time entailed. The Committee and Dr. Amsden both advert to the proposed withdrawal of beer from the diet, both of patients and staff. It is distinctly said that this change is not dictated by motives of economy, and it is promised that other articles will be substituted—tea, coffee, cocoa, lime juice, etc. Nor is "teetotalism," stern and unbending, at the root. A far more satisfactory reason is given:—It is desired to show patients who may eventually recover that they can get on as well without beer as with it, so that when they leave the asylum there may be a chance of their avoiding that which will risk a subsequent attack. (See notes on Derby Borough Asylum.) We wish the experiment every success, feeling sure that principle will not

lead to the withholding of stimulants where they are called for on medical grounds.

The Committee have revised the pay of attendants in their favour. All are to receive 10s. per quarter good conduct money in addition to their wages.

We append extracts from reports of various Boards of Guardians, showing a healthy expression of opinion, which only needs judicious guidance to ensure reform in many directions. It is right to add that every such report cordially acknowledges the endeavours made to ensure comfort and happiness.

CHELMSFORD.—Some of the inmates seem to feel it a great indignity to have to wear pauper clothes. These, we suppose, were persons who have become chargeable to their parishes by reason of their being sent to the asylum; and we are inclined to think that an alteration in this respect might in many cases be a benefit to the parties aggrieved.

ROMFORD.—Your Committee much regretted to observe several imbecile children in some of the wards with the adults, and strongly urge upon the authorities the necessity of providing suitable accommodation for this class of patient.

SAFFRON WALDEN.—From careful inquiries we would suggest the following be removed to the Union Workhouse:—J. T., reported harmless, clean, and quiet; M. A., reported the same; J. D., reported the same; A. E., reported the same; and M. R., reported childish, quiet, and clean. This last-named patient, through having lost the use of her legs, would require some little attention, which, however, it would be perfectly possible to give her in the Workhouse Infirmary. The following two patients, J. F. and J. A. C., were reported as harmless, quiet, but dirty; we, therefore, leave it to the consideration of the Board whether the accommodation and attendance at the Infirmary warrants their removal.

Exeter.—There are few points of special interest in this report. The recovery-rate was high, 47·3. The death-rate 7·2. Intemperance was returned as a cause in 15 per cent. of the admissions, a rate considerably above that of the county at large, or of Dorsetshire.

Glamorgan.—Pressure on the available accommodation is leading to the erection of large extra blocks on each side. Dr. Pringle points out that it is bad business to be short of room, and thus have to board patients elsewhere at a great expense. He tells his Committee that the profits derived from Glamorgan patients boarded out have been so considerable that out of them a neighbouring asylum has been enabled to build a handsome chapel. He also reminds his Committee that a very heavy death-rate from phthisis has been coincident with overcrowded wards. General paralysis has made a heavy mark (over 20 per cent.) also on the death-rate, while it has accounted for about one in nine of the admissions. Eight female general paralytics were admitted. Only one quarter (about) of the admissions come in class i. of the duration table, i.e., first attack of less than three months' duration, while one-third were of at least twelve months' duration. One-fifth of the admissions were ascribed to drink. Dr. Pringle ex-

presses the opinion, in which we coincide, that undue Bible-reading is more often the result than the cause of melancholia, and he is strongly of opinion that a proper conception of religious truth, backed up by its being used as a guide in our every-day life and action, tends to ward off strongly inherited insanity.

The recovery-rate was 31·3, but 26 other patients were so far improved that they returned to the care of their friends.

We are glad to see that the Committee have taken a very liberal view of what is pecuniarily due to those on whose efforts the success of treatment and care depends.

Gloucester.—Mr. Craddock congratulates his Committee on the fact that the present accommodation is sufficient to meet all probable requirements for at least twenty years to come. The question as to whether any spare places should be given to private patients has been reconsidered, and after three years' disqualification they have again been admitted. A very proper distinction has been drawn between the claims of private patients from the county, who are charged 15s. per week, and out-county private patients, who pay £1. Mr. Craddock hopes that in time the old asylum will be sold, and the patients removed to another building to be erected in contiguity with the present second asylum. He had reason to consider no less than 52 per cent. of the admissions to be curable, and had the satisfaction of discharging 62 per cent. of those deemed curable during the current year. The recovery-rate was 42·92; the death-rate 11·47. About 10 per cent. of the admissions were due to intemperance. We should here say that many of the tables are given in great detail, showing an immense amount of work, and are interesting from many points of view. But from one very important point—comparison with other institutions—the detail is somewhat embarrassing.

Hampshire.—The asylum is practically full, but 200 patients will be removed when the Isle of Wight Asylum is opened. Meanwhile Dr. Worthington is anxious to find some other place than the asylum wards for idiot children. We note that one male and one female were admitted under 10 years of age, one at least of them presumably being two years and seven months of age. If this reading of the first entry in the table of ages is correct, surely nothing can point more strongly to the necessity for providing some special institution. On all grounds it is desirable. Experience shows that much may be done in the way of educating idiot children, and also in improving habits and conduct. But this can only be done by those who are specially skilled, and there is no room in county asylums for such teachers. We regret that the opinion of Dr. Macdonald, of Dorset, is, as we have said before, opposed to Dr. Worthington's, for the way would be made easy if several neighbours joined together in carrying out the idea, the expense of which would be considerable for only one county. But, failing such a union, we fully believe that if an institution were

founded and conducted on the principle of admitting not only county but also private children the net expense would be much reduced. Not only is there a demand on the part of the classes just above the lower, but the middle classes may be expected to patronize a well-conducted home. There is less scruple in mixing with inferiors in the case of children than there is with adults.

The Commissioners note with pleasure that it is proposed to supply a Sunday suit to the majority of the male patients.

Hereford.—This report contains an able statement of reasons for spending a large sum of money on the effectual ventilation and heating of the asylum. Dr. Chapman attributes a good deal of illness and a good number of deaths to the imperfections of the present system. He points out that more than half his residents are over 50 years of age. He apparently has much ground for stating that, *cæteris paribus*, the asylum is more difficult to manage than most others on account of the great proportion of old folk. More nursing, more special arrangements, are called for; and he attributes several resignations in the staff, after only a short residence, to the fact that the work is harder than usual by reason of the helplessness of his patients. We note that out of 82 admissions eight were between 70-75 years of age, four between 75-80, and two between 85-90. If these folk were sane and in a good position of life, the health of each one in our trying climate would be an object of some solicitude; what must that solicitude be, and what extra care must be required, when the element of helpless, restless insanity is imported? He attributes the rise in the mean age of residents over the average of other asylums to the younger folk leaving the country for towns or emigration.

Hull. Borough.—General paralysis claims 27 out of the admissions (136), being just about 20 per cent. This, epilepsy, congenital deficiency, senility, and dementia make up a large and most unsatisfactory proportion of the admissions. Intemperance was assigned in 49 cases, or more than a third. What a contrast to Cornwall, where only one alcoholic case occurred last year, and that was of a foreigner, who turned out to be not insane! The death-rate is high, 13·41, but four-fifths of the 46 deaths were primarily due to progressive disease of the nervous system. 43 post-mortem examinations out of 46 deaths is a good record. The Committee advert to the high rate of maintenance. Dr. Merson deprecates the charging of several items, *e.g.*, artisans' wages, to maintenance. This is certainly contrary to usual practice. We note that, for some reason or another, the charge to maintenance on account of farm and garden is 2s. 5d. per head per week—a sum only approached by one asylum in the country, and, barring the latter and one other, at least a shilling more than in a few others, while it is 1s. 6d. and more in excess of the charge in the great majority. Yet it is claimed that over £500 profit is made on the farm in these bad times. We fancy that any excess in

weekly cost is mainly apparent, and a matter of account, for the other items, *e.g.*, provisions, wine, etc., are well within the mark, especially if we take into account the large amount of nursing cases.

Ipswich. Borough.—The statements of Committee, Medical Superintendent, Commissioners, and Chaplain are indeed very prosaic. No point of interest arises in any one of them, unless it be that the recovery-rate has reached the excellent figure of 63·7. The death-rate is 12·2. Out of 33 deaths general paralysis accounted for seven, while phthisis claims no less than 10, or exactly 30 per cent. This should raise some suspicions as to ventilation, warming, etc. We think that the diet scale might be advantageously extended.

Kent. Barming Heath.—We regret to note important mistakes in the statistical tables. It would be infinitely better for asylum superintendents to omit them altogether than to issue misleading figures. Justice obliges us to say that we cannot bring the charge of “cooking” these tables, as no attempt has been made in the Barming Heath report to make them agree. Thus, taking Table IIa., it is stated that of 5,691 persons admitted during 18 years, 2,842, or 49·9 per cent., recovered; of these, 783 were re-admitted in consequence of relapse, leaving persons not relapsed 2,059. The relapsed persons discharged recovered amounted to 577. We are then informed that the *not* recovered persons equalled 3,051, being 53·6 per cent. of the persons admitted. We suppose that sheer carelessness has substituted “not” for “net,” but, taking the latter as intended, we have the astonishing result of a larger percentage being cured after deducting relapses than before. The net number should be 2,636 ($5,691 - 2,842 = 2,849$; this $- 783 + 577 = 2,636$) instead of 3,041. In fact, apart from blunders in addition and subtraction, the calculation is made on recovered *cases* instead of persons.

In Table IV. the total number of new cases (in other words, persons) admitted during the above period is 5,568, being 123 less than the total given above in Table IIa.

The total of recovered *persons*, 2,842 (given in Table IIa.), is the same as the total of recovered *cases* given in Table II., but in Table III. the total of recovered *cases* is 2,801, and in Table IV. 2,623.

Take, now, the *deaths* for 18 years. They are in Table II. given as 2,452, in Table III. as 2,444, and in Table IV. as 1,833. The total remaining in the asylum on December 31st, 1892, which appears in Tables I., II., and III. as 1,513, becomes transformed into 1,349 in Table IV.

The deaths during the year are given in most of the tables as 171, but in Table IV. as 199, and in Table VI. as 170.

Then the total recoveries during the year given in Table IV. are 230, but in other tables 182.

In Table I. the figures representing *cases* and *persons* admitted, recovered, and under care during the year are identical—a coincidence so highly improbable that we venture to ask whether these numbers are not also incorrect?

Again, the cases discharged relieved during the 18 years appear as 446 in Table II., 444 in Table III., and 277 in Table IV.; the not improved as 545 in Table II., 539 in Table III., and 200 in Table IV.

In the last-mentioned table the total remaining, given as 1,349, after deducting the total discharges and deaths from total admissions, is quite wrong. Thus:—Total admissions, 6,422; recovered, 2,623; relieved, 277; not improved, 200; died, 1,833—amounting to 4,933, which, deducted from 6,422, leaves 1,489, and not 1,349.

We have no doubt that this tissue of errors will be rectified in next year's report, so that those who refer to these tables in future years may find the correct figures given twelve months afterwards.

Kent. Chartham.—Dr. FitzGerald reports that late in the year beer was withdrawn from the patients' diet, and so far no complaints have been made. He is far from satisfied with the nature of the admissions, no less than 60 per cent. of the males being included under the heads of general paralysis, epilepsy, senile dementia, and idiocy. The recovery-rate was 33 per cent. and the death-rate 9.9. Here also phthisis accounts for 18 deaths out of 88. In one-tenth of the admissions intemperance was said to be the cause. We note a recovery from general paralysis.

(*To be continued.*)

2. Therapeutic Retrospect.

By HARRINGTON SAINSBURY, M.D.

Works upon the subject of brain surgery are becoming very numerous, but then the workers in this department of medical knowledge are increasing in number, and fresh gains are continually being accumulated—hence their apology. A recent work by Dr. Allen Starr* appears to be carefully done; the writing is clear and the illustrations are many and good. Diagrams minutely apportioning the functions of motion, in particular, are given, but they lose much of their significance from a practical point of view when we consider that the different areas are not sharply demarcated, and that "each motion, each part of a limb, has a wide general representation over the cortex, and a special representation at a limited area." The increasing size of the windows which surgeons in search of disease make in our skulls bears witness to

* "Brain Surgery," by M. Allen Starr, M.D., Ph., etc. London: Bailliere, Tindall and Cox. 1893.

this fact. We read in this chapter, on the diagnosis of cerebral disease, that the areas of undetermined function, which still occupy a large portion of the whole brain surface, are much more extensive on the right side than on the left. The main facts else are the usual ones, but they are given briefly and clearly, and amongst other diagrams they are illustrated by two excellent photographs of the brain *in situ*.

What is the list of operations which may be performed upon the brain? They are: For the relief of epilepsy, for the cure of imbecility, for the removal of clots, for the opening of abscesses, for the excision of tumours, for the relief of intracranial pressure—with or without drainage of the lateral ventricles—and for the cure of traumatic insanity.

The cases of epilepsy which admit of treatment are those of motor or Jacksonian epilepsy and their equivalent on the sensory side, classed under the head of sensory epilepsy. "The ordinary idiopathic epilepsy is as far removed from surgical treatment to-day as it was in the past." Belonging to the class of Jacksonian epilepsy are those cases of speechlessness which may accompany spasm of the right side of the face, or which may occur as the sole symptom of the attack. Dr. Starr refers to the probability that aphasia may be due to sudden suspension of the function of the sensory areas of speech, thus giving a sensory as well as a motor form of aphasia.

Motor or sensory epilepsy is often traumatic, and the guide to the performance of the operation will, in such cases, be a double one, viz., the site of the injury and the site of the brain which the epileptic symptoms present indicate. Where "the injury and the localizing symptoms do not coincide, it is better to follow the localizing symptoms rather than the surgical injury." Failing localizing symptoms but present a traumatic injury, we may have to act solely upon this latter indication. In advising the operation, we must bear in mind: first the danger of the operation itself (Starr gives the average mortality at seven per cent.); next the results which the operation is likely to attain. Starr sums up this chapter, which contains a record of 30 cases operated upon with details, by showing that the majority of operations have been failures, and that we can hardly expect anything but failure in certain cases, such as those of adhesions between dura and pia or between pia and brain, or where a scar is situated in the cortex, because the operation of breaking down adhesions or of excision of a scar will be almost certainly followed by reformation of the adhesions and of the scar. Should there not be added to this another difficulty in the fact of a polarity established by long abuse? Thus the trick of spasm once well learned may persist and be due to an area of weakened resistance, though the original exciting cause be removed. In spite of the actual failure and the reasons for further failure, we think Dr. Starr puts the case fairly to the

patient in the following words: "You have a brain disease; that disease is causing fits; that disease may be curable by operation; we cannot tell whether it is curable until we operate; we cannot promise that the operation will in any way benefit; a majority of chances are against cure, but it is the only method of treatment which affords any hope whatever, and it is a method which is fairly safe." We presume that this argument would be used when medical treatment had been fairly tried and found useless.

The chapter on craniotomy for microcephalism and imbecility is a very interesting one. Three classes of defects are here described, cases with definite palsies, the birth palsies of Gowers; cases of mental or moral defects constituting grades of backwardness or imbecility; and cases of sensory defects, *e.g.*, visual, auditory; herein would come deaf-mutes. Children of each class may be epileptic. From a study of these cases the main facts to be noted are:—

1. The greater danger of the operation of craniotomy in children; of 34 cases tabulated 14 died.

2. The incompleteness of the reports, especially in respect of the time the cases have been watched after the operation.

4. The irremediable nature of the underlying defects in many cases, atrophies, porencephalus, hydrocephalus, meningo-encephalitis.

5. The impossibility of diagnosing with any certainty the nature of the defect.

But on the other hand we have to remember that the growth of the brain proceeds or may do so up to the age of 20, if not longer—that conditions presented by these cases justify, if ever, the incurring of a certain, or even a considerable, amount of risk, and that in a number of cases the mental condition has undergone much improvement after the operation. We tread surer ground when we consider craniotomy for cerebral hæmorrhage where *traumatism* has been determined, and the symptoms make a surface hæmorrhage likely. When the cerebral hæmorrhage is *not traumatic* we may also advise trephining if the symptoms call for interference, and we can make sure that the hæmorrhage is superficial, but the difficulty lies just here, *viz.*, in the diagnosis of surface hæmorrhage, not to mention the difficulty of eliminating thrombosis and embolism as causes of the symptoms before us. Trephining for cerebral tumour or cerebral abscess we need not discuss.

A short chapter deals with trephining for insanity. Of this class the only cases admissible for such interference are those of traumatic origin, and these the author states average not more than two per cent. of all cases: thus a very small proportion. Two cases are reported in which the operation clearly modified the insanity, but Dr. Starr considers that the cases thus far recorded are too few to warrant a definite verdict; he thinks it probable, however, that an early trephining may cut short traumatic insanity

and prevent its going on to a condition of chronic dementia. Trephining for general paralysis of the insane is condemned as useless.

Headache of traumatic origin, well localized and severe, has been operated on after all other means had been tried, and of this treatment two successful cases, one by Horsley and one by Weir, are recorded.

A chapter on the operation of trephining concludes a very useful treatise.

The Treatment of Neurasthenia.

Dr. Constantin Paul contributes a lengthy paper on this subject to the "Bulletin Général de Thérapeutique," September and October numbers, 1893. His method of treatment is by hypodermic injection of an extract of the grey matter of the brain of the sheep. He bases his conclusions on a record of 53 cases, and upon an experience of this method of treatment of two years' duration. Nothing on the face of it seems more unlikely than that exhaustion of the body which seems more directly to depend upon an exhaustion of the central nervous system should be overcome by the use of an extract of the nervous tissues of an animal, but since the establishment of the use of the thyroid extract in the treatment of myxœdema, the mouth of the sceptic is stopped—observation alone is in place, and to that we must turn.

The main facts of neurasthenia, this bitter comment upon 19th century life, are, 1st, the profound depression of the organism which manifests itself whenever a call is made for any output, even the slightest, and 2nd, the inability of the organism to refund itself, to replenish its wasted forces. Two cardinal symptoms are present in all the severer forms of neurasthenia, viz., sleeplessness and mal-assimilation, and these sufficiently explain the inability of the organism to recover its forces. In neurasthenia fatigue oversteps the limits of health, the criterion of which is this very inability by rest and food to gain refreshment. Neurasthenia puts on many forms, cerebro-spinal, spinal, genital, chlorotic, vascular or cardiac, gastric, etc. The particular form of neurosis may be the hysterical, or the patient may be a hypochondriac or melancholiac. The most potent cause of neurasthenia is excessive call upon the intellectual and emotional functions or upon the functions of the genital organs, the latter involving emotional fatigue. The mode of treatment here advocated is the Brown-Séquardian by injection of an organic extract, the particular extract used by Dr. C. Paul being that of the grey matter. The dose employed varied between 2 c.c. and 5 c.c. The injections were some twenty in number and were spread over some two and a half months on an average. Of the cases recorded, one of the most striking and complete is that of M. Auguste Dorchain, a poet of considerable repute in France. In this case the cure was very complete, and nearly a year after the commence-

ment of the cure, and some eight months after the discontinuance of the injections, the condition of well-being was maintained. Of 53 cases treated, in five only were the results negative. In the others, varying degrees of improvement were noted from such as might be termed complete cures up to others in which the cure was almost complete and the avocations of life could be resumed down to lesser degrees of betterment, but the proportion of the cures or marked improvement was very large. To the five cases of failure out of the 53 cases treated Dr. C. Paul brings eight other failures, but these he regards as due to an inadequate treatment, because of, 1st, an insufficiency in the number of injections, 2nd, an insufficiency in the doses employed.

Dr. Constantin Paul regards the organic liquid of the injection as a nerve tonic *par excellence*. Its first gift bestowed is a little sleep, which is chiefly characterized by its refreshing powers. The appetite is next awakened and the powers of assimilation. Prominent are its effects in strengthening the heart's action.

In the "Bulletin Général de Thérapeutique" for September 15th, M. de Fleury records 21 cases of neurasthenia in which he employed a complex therapy, including the hypodermic use of concentrated artificial serum, the effects of which are, he says, quite as marked as those obtained from the testicular and nervous juices. The neurasthenic dyspepsia he treats on dietetic and medicinal lines; the loss of sleep by a careful regulation of the day's routine; the pains and hyperæsthesias, etc., by statical electricity and dry rubbing. Rest, which he recognizes as excellent at the start, he replaces soon by regulated labour.

These statements are rather hard upon the grey matter of the brain, but we shall perhaps have to ask ourselves concerning this new treatment how much we must put down to the needle-thrust itself with the injection of *some kind* of liquid and how much to the *actual quality* of the liquid. That treatment by injection will have a much more potent *suggestive* action than treatment by milder methods is self-evident.

Precision in the Treatment of Chronic Diseases.

This is the title which Dr. Weir-Mitchell gives to an address delivered before the New York Academy of Medicine, December 15th, 1892, and reported in the "New York Medical Record" for December 24th, 1892, and again nearly in full in the "Practitioner" for November, 1893. The subject is the rest treatment known so well, otherwise, as the Weir-Mitchell treatment, and we turn with a sense of relief to a method of cure which may really lay claim to the term rational as distinguished from the mysterious uses of the hypodermic needle. We can all admit the value of rest; though we, most of us, far under-rate its influence. We can accept as part of the rest scheme the influence of the nurse, who is there to make us feel that we are, in a sense, taken possession of, us and our responsibilities. How important, under such cir-

cumstances, must be the character of the nurse, and how necessary it may be to change the nurse if the patient do not thrive. Dr. Weir-Mitchell accentuates this, as does Dr. Playfair, his chief exponent in this country. Change your nurse then is one important dictum if the patient do not like her, and is in consequence fretted by her. Then the rubber, she must engage our attention, for again the personal element comes in to a great extent. "Why one woman," says the lecturer, "can rub a patient and leave her sleepless, excited, uneasy, and another succeeds in soothing her and in calming her nervousness, is even yet to me a problem which I can solve by change but cannot understand." Electricity is generally regarded as the one thing you may leave out from the treatment; Weir-Mitchell advises against the omission, for "in some cases it leaves the extremities warm when massage does not." In the simple form required it should, he says, be in the hands of the nurse. As to drugs the doctor must be resourceful to overcome the fads which many of these patients show towards such means, and he instances a case in which a patient, very much on the alert on this point, took, unwittingly, in her daily allowance of oranges, the drugs which she was so resolute not to take—a valuable wrinkle. Isolation, rest, a suitable nurse, a suitable masseuse, the use of electricity, and, if needful, the use of drugs, all these factors are there as aids to the assimilation of a diet which is made as full as possible, but which is too well known to need reference. A life such as is here led is severely scheduled, but this very element—routine—is a potent factor in the treatment of chronic disease of all kinds, especially when there is mal-assimilation. We are urged to bring to bear, in the treatment of chronic disease, somewhat of that accuracy which we bestow upon acute disease. Valuable instruction is then given us in the treatment of cases not ill enough to require the full rest treatment, but too ill to yield to mere tonics or change. A schedule of partial rest treatment is detailed.

The symptom, grave insomnia, is the one which in all these cases Weir-Mitchell most dreads. In bad cases of the kind he gives straight away lithium bromide in 30-grain doses, thrice daily, at noon, at 6 p.m., and at 9 p.m.; this he gives in malt or otherwise, and then goes on to decrease it grain by grain. We believe that he chooses the lithium salt, believing it to be, weight for weight, the most potent of the bromides as a sedative. For positive hypnotic action he falls back on sulphonal in hot water at bedtime, but goes on to say that some of the hydro-therapeutic measures are better still, and he describes the use of the "drip sheet" as a remedy past praise.

Among other conditions to be treated by the rest cure he cites chronic alcoholism, the rest in bed to be combined with massage and the skim milk diet; all forms of neuritis, local or general, in particular alcoholic neuritis; obstinate cases of chorea; all grave forms of the morphia habit. A few words follow upon the use of

the local "splint-rest" in the treatment of sciatica, which "is nearly always some grade of neuritis." Some interesting remarks on backache and on headache (very brief on the latter) conclude an address worthy of the best traditions of the older school of medicine.

The Use of Exalgine. "Lancet," April 8th, 1893.

Dr. E. G. Younger, Physician to the St. Pancras Dispensary, late Senior Assistant Medical Officer (male department) Hanwell Asylum, reports nine cases of exalgine use. Four of these were for simple headache or neuralgia, five for headache and insomnia in cases of mental disease, *e.g.*, melancholia, melancholia with delusions, a case of general paralysis, and a case of epilepsy. In all nine cases the symptom pain was either removed or markedly improved. In the epileptic case the fits were unexpectedly controlled. No bad effects were observed, but then the doses used were small; two grains every four hours was the highest rate of administration, and in the majority of cases one grain three or four times a day sufficed. He prescribes it along with 10 minims of spirits of chloroform, in an ounce of water or infusion.

There can be no doubt that the dose of exalgine should be carefully controlled, and the smaller doses first tried.

Antipyrine, Acetanilide, and Phenacetine: Their Ill-Effects.

We have already in this Journal had occasion to refer to the intoxications occasioned by these drugs and to quote from Falk's *résumé* of the subject in the "Therapeutische Monatshefte." Dr. R. Paterson,* Pathologist to the Cardiff Infirmary, contributes a short paper on the same subject, the basis of which are the investigation results of the South Wales branch of the British Medical Association. This branch association, among others, took up the subject at the instance of the Therapeutic Committee of the British Medical Association, Dr. Gairdner being the original mover in the matter.

The ill-effects produced by antipyrine include collapse, vertigo, cyanosis, profuse sweating, eruptions, the production of physical and mental depression. The effect upon the blood is to produce the condition known as methæmoglobinæmia. The collapse may be severe and may last for hours. Pneumonia predisposes to the occurrence of collapse, and the drug must be regarded as dangerous in this disease, even in doses of ten grains. The cyanosis is to be regarded in part as due to the cardiac depression, in part to the methæmoglobinæmia. The profuse sweatings are depressing, but they constitute the minor intoxication symptoms. The eruptions are urticarial, erythematous, also scarlatiniform and bullous, but of these latter the branch association received no reports. Hæmorrhages have been reported by continental writers, and Dr. Paterson refers to this as of importance where the

* "Practitioner," October, 1893.

propriety of administering the drug in typhoid or phthisis is considered. Antipyrine may develop a habit, and such state is marked by apathy and depression. Given along with a stimulant, e.g., ether, ammonia, brandy, digitalis, caffeine, it is said to be administrable in much larger doses with safety. The untoward effects of antipyrine constitute but a very small percentage of the general action of the drug, and no doubt we have in it a valuable and potent remedy, but unquestionably it calls for caution.

Antifebrine (acetanilide) is admitted on all hands to be a very depressant medicine, and though, if cautiously used, it may prove very effectual, yet the tendency has been to forsake it in favour of antipyrine. It is not very unlikely that it may lose its seat in the British Pharmacopœia. One merit it certainly possesses—it has not found favour with the public.

Phenacetine is used principally as an anti-neuralgic remedy. It claims, and probably with justice, to be less depressant than antipyrine; in fact, to be a safe drug in the doses usually administered—5-10 grains. In large doses it may produce unpleasant symptoms of the antipyrine class.

Thyroid Secretion as a Factor in Exophthalmic Goitre.

In the "Lancet" for November 11th, 1893, Dr. G. R. Murray, of Durham and Newcastle-on-Tyne, contributes an interesting article on the above subject. He brings forward the views of others—Möbius, Müller, Wette, Maude—according to which the enlarged thyroid, by simple mechanical effects or by secretory action, plays a prominent if not a primary part. He refers first to that which may now be regarded as an established fact, the secreting action of the thyroid; next to the fact that in Graves' disease the thyroid is nearly always enlarged, and that, as Professor Greenfield has shown, "there is an enormous increase in the secreting structure of the thyroid and also of the colloid material in the spaces of the gland." Then we are led to the effects of over-doses of thyroid extract in the treatment of myxœdema, viz., tremor, acceleration of pulse, slight sweating and flushing, prostration, slight rise of temperature, a group of symptoms we are familiar with in Graves' disease. Further, operative treatment by extirpation of the gland, or operation upon the gland calculated to diminish the amount of secretion, has given many instances of complete cure of exophthalmic goitre. In 22 of 29 cases of the kind collected by Stierlin there was complete recovery. The influence of the inunction of the red iodide of mercury ointment Dr. Murray considers to be explained by its power to reduce the size of the gland. Belladonna is known to influence glandular secretion, and it is regarded by Dr. Wilks and Dr. Gowers, and others, as decidedly efficacious in a number of cases; of course, it may signally fail. A relationship between myxœdema and exophthalmic goitre has been noted in that the cure of the latter has been followed occasionally by the appearance of symptoms of the former,

i.e., of a disease which is known to stand indefinite relation to atrophy of the thyroid.

Dr. Murray concludes by opposing, in two columns, the symptoms of Graves' disease and of myxœdema; in this way the opposition of the symptoms to which Dr. Byrom Bramwell had drawn attention is made very manifest. We would draw attention to the opposition in the matter of the electrical resistances as depending probably upon the moist and dry states of the skin present respectively in these two diseases. This is the view, we believe, which Dr. de Watteville has expressed, and, if true, we should have to cancel, as primary opposing symptoms, these electrical phenomena. The argument of the article in the "Lancet" is closely reasoned, and, we think, warrants the conclusion "that any line of treatment which is adopted for exophthalmic goitre ought to include special measures directed to the improvement of the abnormal condition of the thyroid gland."

At the Medical Society of London, "Lancet," October 21st, 1893, Mr. Mande, quoted in the preceding, discussed the etiology of Graves' disease and its relation to myxœdema. In the comments which followed, we may note the remarks by Dr. Burney Yeo on the unilateral and crossed effects resulting from unilateral enlargement of the thyroid in a case shown by him (the general phenomena of the disease, he thought, were due to the central nervous system); also the remarks by Mr. Berry and Dr. Hector Mackenzie. The former showed microscopical specimens from two cases of Graves' disease in which there was a complete absence of all colloid secretion; also two other sections from ordinary parenchymatous goitre in which there was a large excess of colloid material in the alveoli. Dr. H. Mackenzie had given large doses of thyroid extract in Graves' disease without bad effects. Clearly the whole subject requires much further investigation.

3. *American Retrospect.*

By FLETCHER BEACH, M.B., F.R.C.P.

American Journal of Insanity, April, July, October, 1893.

Alienist and Neurologist, July, 1893.

Journal of Nervous and Mental Disease, July, 1893.

The "American Journal of Insanity" keeps up its high character under the able editorship of Dr. Blumer, and is well abreast in scientific research with all matters concerning the treatment of the insane.

Dr. M. J. White has a paper on "Adjuncts to Medical Treatment in Hospitals for the Insane." This was read at the annual

State Conference of Charities and Correction in March, 1893. The author believes that rest, quiet, and freedom from mental exertion is the proper treatment for acute mania, but thinks that the average case of acute melancholia requires not so much rest and seclusion as the employment of methods for weaning the mind from gloomy forebodings and diverting it into healthy channels of thought. A study of peculiarities of disposition is required, and suitable measures set on foot to meet them. He believes in the physical theory of insanity, and considers that in many cases there is an interdependence of physical and mental conditions, but he is convinced that, in addition to the tonic and hygienic measures employed, the moral treatment of the insane is of great importance. The effect of environment on the insane is apparent to every observer, and the substitution of cheerful, sunshiny abodes for the former gloomy structures, with bare exterior, appeals to the sense of the beautiful and good. These are in turn being modified by the addition of cottages, so as to separate the milder types from the classes which annoy and menace their fellow patients, and are found of great use in the sensitive class of acute cases in whom first impressions are potent for good or evil.

The performance of household duties and the employment of the patients in trades have given very satisfactory results; instead of noise and confusion there is now a spirit of contentment and hope. The effect of active exercise and employment in the open air suited to the character and strength of the patient, and the administration of hot milk at intervals, has been to produce restful repose at night, and so the sedatives formerly in use, and which produced only artificial sleep, have been to a great extent abandoned. For those who are disinclined for active exercise, or who are physically not strong enough for it, the Turkish bath has been found very useful. This measure, as an adjunct to the ordinary medical and moral treatment, together with the administration of hot milk at night, has, in the Milwaukee Hospital for the Insane, reduced the sedative draughts practically to nothing, there being now only two doses given for this purpose per night. The author believes that music should be made more use of and the employment of vari-coloured and attractive objects, as well as the association of the various classes of the insane for short periods daily in dining-rooms in the institutions. By these means healthful lines of thought are established, and an approach to the conditions formerly enjoyed in the outside world is secured. The treatment laid down for the insane in this paper has for many years been in use in the best asylums in Great Britain.

"Trional and Tetronal—Clinical Observations on their Action as Hypnotics and Sedatives in the Treatment of the Insane," is the title of a paper by Dr. W. Mabon. Trional and tetronal contain, the first three, the last four ethyl groups, and it is on these that

the physiological activity of these remedies depends. They are said by some observers to be more active than sulphonal, since the patient is more quickly affected, awakens readily, and unpleasant after effects are not produced. Trional is about as expensive as sulphonal, but tetronal costs twice as much. The action of trional as a hypnotic and sedative is given in 22 cases, and of tetronal for the same purpose in 15 cases. The author concludes that trional seems to be more serviceable as a hypnotic, and tetronal as a sedative. In the majority of cases fifteen grains of trional given in hot milk at bedtime produce sleep of from six to nine hours' duration, and the sleep is not accompanied by dreams. From fifteen to forty-five minutes is the time usually taken for the drug to produce its effect. In the case of tetronal fifteen grains were also required to produce the same result, and as this remedy is twice as expensive as trional, the latter is, as a rule, to be preferred. Both drugs had the effect in some patients of producing sleep for two nights after a single dose.

Dr. Smith Baker writes on "Ocular Psychalgia." He is of opinion that "the ultimate close relationships of the neuro-psychical activities which together make up the complete mind may be assumed in connection with every presentation in the clinical field, no matter how grossly material or how far removed from mental activity it may seem to be." He thinks that persons suffer more or less on account of their doctors not recognizing the elementary facts involved. In many cases the patient, after being treated, does not get well, and so after a time a condition of sub-tone is produced, which has been described by a writer as "blue-rose melancholy." In some patients the etiological and diagnostic investigation is most disheartening. A case is related of a lady whose temperament was bright and cheerful up to two years before consulting her doctor. Physical examination showed nothing, and no irregularities of function were discovered; in fact, she seemed quite well except for a "blue-rose" feeling which had gradually developed. The author tried various remedies without avail, when quite unexpectedly he discovered a corneal astigmatism "of 1.50 D. axis 90 degrees in each eye, which proved to be hypermetropic." The optical correction required having been applied, relief of the mental pain followed, and her surroundings once more seemed cheerful. Three other cases are given in which mental suffering disappeared on applying the proper glasses. This treatment is similar to that which has been found useful in relieving pain in the head in certain cases, and the author of this review has proved it to be an adjunct to the bromides in reducing the number of fits in some patients suffering from epilepsy. When one thinks of the probable reason why so slight a cause should produce such fateful results, one is led to the conclusion that the local factor is quite inadequate, unless we associate it with a pathologically fertile soil in which to thrive. "Given this neuropathic

basis, and it may require but a slight local excitation for the development of mental pain." Hence in any given case, the exciting cause must be searched for until it is found.

"Hopeful Recoveries from Insanity" is written by Dr. P. M. Wise. He agrees with Bucknill and Tuke's statement that five of eleven persons die without recovery, and that of the six who recover only two remain well, the other four relapsing, three of whom eventually die insane. He does not think that sixty-six per cent. of all first recoveries relapse in the ordinary sense of the word, for many cases do return to their standard of health and normal mental condition. The intervals between attacks vary, and sometimes continue for half a lifetime. Then, he says, there are twenty per cent. in which insanity has been an accident in life. The patients have acquired it as they might do other diseases. Recovery in these cases is hopeful, provided convalescence is sufficiently prolonged under favourable surroundings. The author believes that the most hopeful field of labour is to be found in strictly defining these two classes, and in reducing the number of those who relapse after recovery. There is no doubt that many cases have become hopeless after recovery from the first attack, because they have not been retained under treatment long enough, or placed in a favourable environment until a proper amount of endurance has been attained to withstand the many friction elements that attack men and women. The object of the paper is to sustain the belief "that the cause of a large proportion of relapses after *apparent* recovery is the application of the original exciting cause before the disordered nervous system is restored to its best possible condition of resistance; in other words, until restoration is fully established." The author assumes that fully three-fourths of the 66 per cent. who recover from the first attack have a second attack on account of subjection to primary exciting causes. He is of opinion that interest should be maintained especially in first recoveries, and that there are other means of treatment besides those of the asylum. There are two classes of cases, one of which can safely undergo convalescence at home; the other, larger class, whose home surroundings retard convalescence, or who have no home or friends to provide for them. There is no doubt that the convalescent period in hospitals for the insane has been too frequently dangerously shortened, and if the necessity for after-care were asserted there would no doubt be some suitable response. He refers to the association at work in England for the "After-care of poor and friendless female convalescents," but does not think that it represents all the objects he wishes to secure. He prefers the system applied by the after-care institution, l'Asile Ouvroir, Grenelle, Paris, which "not only cares for convalescents in residence, but keeps touch with mental convalescents in their family life." There are a considerable number of cases that have broken down in attempting to obtain

their daily bread, and who have no home which can serve as a medium between the asylum and renewed struggle. These are the cases for which the After-Care Association in London has given its aid. The author wishes to point out and impress his belief "that a large number of relapses are the result of premature discharges, and are avoidable by some means of care between the asylum and home . . . in order to permit organic recovery and renewed evolution of psychical integrity."

The President's address before the American Medico-Psychological Association, held at Chicago last June, by Dr. Andrews, Medical Superintendent of the Buffalo State Hospital, is an interesting one. This was the first meeting of the Association since the change of name from the "Association of Medical Superintendents of American Institutions for the Insane" to the above title. Another change "makes the President assume his duties at the close of the session at which he is elected, and places upon him the responsibility of preparing the work for the session over which he is to preside." The meeting was held at Chicago to commemorate the four hundredth anniversary of the discovery of America. He gives a retrospect of what has been accomplished in the care and treatment of the insane during the past quarter of a century. During this time cerebral pathology has had its origin and development, the microscopical appearances of normal and abnormal tissues have been studied and illustrated, and various nerve centres have been discovered and their functions established. The institutions in America are no longer called asylums, but hospitals for the insane, and are regarded as places for the care and cure of the sick, rather than for simply retention of the insane. These buildings have been improved in various ways, and indicate the adoption of new ideas for the better care of the patients. Medical treatment has made great strides, and there has been an increase in the number of physicians and attendants employed in the care of patients. Unfortunately the increase of medical assistants which has been accomplished in America has not made much headway in this country. Training schools for nurses of the insane have been established there, but as each institution works these schools in its own way there is a lack of uniformity, and Dr. Andrews suggests that the Association should appoint a committee to prepare a definite scheme and the establishment of a uniform method of procedure in these schools. In England, as is well known, the scheme of training attendants in asylums has been laid down by a committee of the Medico-Psychological Association. The employment and use of amusement of the insane are referred to, and the increase of nurses and their better training are looked upon as having the effect of reducing the number of suicides and escapes. The author considers that insanity should be included among the branches of study in every medical school; this has been recog-

nized in England, and the Educational Committee of our Association has impressed upon the various examining bodies the importance of it, and has offered to co-operate with them in formulating a syllabus of subjects to be examined on in insanity. The Association in America appointed a committee to consider the subject, and passed three resolutions to the effect that in every medical school a complete course of lectures on insanity should be delivered to the students, but that no one should be allowed to graduate without a thorough examination on the subject, and that clinical instruction should be given whenever practicable. The author then indicates the direction in which future progress should be made. He advises increased wages and an attention to the comfort of attendants in asylums, recreation rooms for nurses off duty, a cooking school in which the nurses can be taught to prepare the extra diet ordered for patients, the instruction of nurses in some form of physical exercises, such as the movements of the Swedish system, and the abolition of the removal of superintendents for political purposes.

Dr. Burr has an interesting paper on "What Improvements have been wrought in the Care of the Insane by means of Training Schools." We all know that the movement to establish training schools for attendants was first started by Dr. Cowles, Superintendent of the McLean Hospital, Somerville, Massachusetts, in 1882, and now no less than nineteen American institutions have thoroughly equipped schools. The higher training of attendants has promoted the recovery of patients by increasing the adaptability and resources of the attendant, by the more general dissemination of correct information regarding the nature and treatment of mental disease, and by emphasizing the importance of general nursing in the management of the insane. Independently of these causes it seems probable that training schools have been productive of good by lengthening the service of attendants. These points are enlarged upon, and the ways in which they act are fully pointed out.

The "Alienist and Neurologist" has a paper by Dr. S. Baker on "Recent Discoveries in the Nervous System." The discoveries to which the author wishes to call attention were preceded and made possible by two improvements in microscopical methods—the first, discovered by Golgi in 1875, that tissues that had been exposed for a long time to chromic solutions would then take a delicate silver stain, which would display the finest filament of nervous tissue; the second, discovered by Ehrlich in 1886, that methylene blue injected into the circulation of living animals stains the endings of the nerves very satisfactorily. With reference to *spongioblasts and neuroglia*, it seems that both are developed from the columnar cells of the medullary plate. Three zones are distinguished in the myelospongium of the medullary tube, one about the central canal, one formed by the nuclei of the spongioblasts,

and one by the peripheral reticulum. The substantia gelatinosa centralis is formed from the first, the neuroglia of the grey matter from the second, and the white matter from the third. As to *neuroblasts and nerve cells*, the germ cells, the other class of epithelial elements of the medullary plate, also develop quickly. They change their form, are pointed on one side, and soon become pyriform; the pointed end grows until it becomes an extended process of the cell, and looks remarkably like a tadpole. The young cell is now called a *neuroblast*, and migrates from its original seat. In its progress it throws out secondary processes, and becomes a nerve cell, while the primitive processes extend, are invested with medullary sheaths, and become nerve fibres. These neuroblasts belong mainly to the anterior roots which are efferent in their impulses. As regards the posterior roots we find that "at the time of the closure of the medullary groove a thickened portion of the epithelial lining remains at the seam, constituting a band known as the neural crest." This becomes segmented, and forms the spinal ganglia. These ganglion cells finally become bipolar and are called by the author *asthesioblasts*. One of the processes seeks the periphery and terminates in fibrils which end in the cuticular tissues, or in an expansion surrounded by connective tissue. The other process grows centrally, and its final destination is one of the most significant of the recent discoveries. The views held as to the posterior roots are detailed at length, and the description of their actual terminations is fully given. The elements of the anterior and posterior roots, called by Waldeyer *neurons*, are similar in both and are developed in a similar manner. Each is composed of a nerve cell with protoplasmic processes, an axis cylinder process passing into a nerve fibre, and its final termination in a branching tuft. The neuron of the anterior root has short protoplasmic processes and a long axis-cylinder process; that of the posterior root has a long protoplasmic process and a short axis-cylinder which divides and sub-divides. Both appear to originate from a single primitive type. "The primitive neuron is a multipolar, remarkably differentiated cell, whose processes may receive stimuli from without or excite other similar cells by contact with them." The so-called *psychic* cells of the cortex cerebri which are scattered throughout it in the pyramidal layers of Meynert are fully described, and the white matter of the hemispheres is shown to be composed of projection fibres and association fibres. The former, which project the impulses of the outside world upon the sensorium or the reverse, are divided into cortico-afferent and cortico-efferent fibres; the latter, which correlate cortical areas, are subdivided into arcuate and commissural fibres. A description of the cells of the cerebellum, the olfactory organ, the retina, and of the auditory capsule is given, and some finely executed plates illustrate a remarkably able and thoughtful essay.

The "Journal of Nervous and Mental Disease" is composed chiefly of papers on spinal injury and spinal surgery, but there is one on "The Epileptic Interval: Its Phenomena and their Importance as a Guide to Treatment," by Dr. Browning, which is worthy of notice. It is a continuation of a previous paper on the same subject. The respiration, appetite, assimilation, blood, urine, etc., in epilepsy are fully entered into, but the author approves of meat being given twice a day. This is contrary to the experience in England, for it was long ago proved at the West Riding Asylum that the number of fits were increased in proportion to the amount of meat given daily. In one-fourth of the cases of epilepsy of which notes had been taken, sleep was good and free from dreams, but wakefulness of various types is mentioned in eighteen cases, and on the other hand somnolence was noticed in one case. Restlessness in sleep, dreams, somnambulism, and night terrors were also noticed. The position of the head in sleep is of importance with respect to the treatment, for when the patient sleeps with the head low he should wear a night-cap, sleep on soft warm pillows, and strychnine should be administered. When, on the contrary, the patient sleeps with the head high, an over-active brain circulation is probable, and drugs such as strychnine are contra-indicated. As to the use of iodide of iron the indications are nocturnal enuresis, congenital syphilis, glandular enlargements, and anæmic or other conditions demanding iron. It should be well diluted, given after meals, and taken through a tube. An important rule in prescribing for epileptics is to limit the number and variety of the doses, otherwise, as medicines have to be given for a long time, carelessness may creep in and ruin any chance of success. A combination of bromide of sodium, syrup of the iodide of iron, and tincture of digitalis will often be found useful, or, as a substitute, a pill composed of iodoform and reduced iron, but this must not be continued for any length of time.

State Boards of Charities. By WILLIAM P. LETCHWORTH.

This is a valuable historical paper, read at the 19th National Conference of Charities and Correction, held at Denver, Col., June 23rd-29th, 1882. Mr. Letchworth was the Chairman on the Committee of State Boards of Charities of this Conference. He is an indefatigable worker in the cause of the amelioration of the condition of the insane. A very interesting account is given of the above Board in different States. The record shows what excellent work they have accomplished. What is true of the Pennsylvania Board applies, we have no doubt, to other Boards.

Through continuous persistent work this Board has demonstrated its great usefulness, and the fact is patent that by its efforts the charitable and correctional institutions of Pennsylvania are far in advance of what they were before the Board was organized (p. 10).

We have no doubt that these State Boards have been of great benefit. As Mr. Letchworth says —

It would be quite impracticable to give even a brief summary of all the beneficent work that has been accomplished by State Supervising Boards of Charities and Correction, extending in some instances over a quarter of a century. Besides desirable legislative measures secured directly through their recommendations and unwearied efforts, for which they are deserving of high commendation, there has been much good legislation secured indirectly by them, for which they are not credited, and much bad legislation defeated. . . . (p. 22).

This supervision has been exercised in the direction of causing the removal of the insane from county and town poorhouses, providing for them better buildings, largely on the cottage plan, giving to the chronic insane the largest possible freedom on farms, with healthful industrial employment, securing separate asylums for the criminal insane, reducing mechanical restraint to the minimum, and securing legislation for the greater protection of this unfortunate class (p. 24).

A number of valuable suggestions in regard to State Boards are given, and it is regarded as demonstrable that —

The chronic insane can be humanely and very economically cared for, and the maximum percentages of cures reached in special inexpensive asylums, on large farms, under independent Boards of Management. In large mixed asylums the percentage of cures is not so great as the combined average of cures in separate hospitals for the acute and well-conducted asylums for the chronic insane. The dominant idea should be the cure of the insane in the acute period; and our hospitals for this purpose should be small and in every way constructed, supplied, and administered on the highest therapeutic principles. . . . We must boldly protest against the seemingly irresistible tendency to build up enormous mixed asylums out of what were originally designed for moderate-sized curative hospitals (p. 30).

Illinois Eastern Hospital for the Insane at Kankakee, 1892.

This is the eighth biennial report, and the name of Dr. Dewey appears for the last time as medical superintendent. Of the discreditable means pursued to eject him we have already spoken strongly in this Journal. We understand that the physician by whom he was supplanted by political influences collapsed soon after his appointment. We especially note in this report the satisfactory progress made in the employment of the patients. A new building provides employment at various trades and handicrafts, while an old shop building is utilized for about 80 female patients employed in knitting, weaving, spinning, rug making, and ordinary sewing. It is gratifying to note that during the last two years a constant percentage of 73 out of every 100 patients have been usefully employed.

The perusal of this report, indicating as it does no loss of interest in the development of this remarkable institution, increases our regret that it is no longer under the experienced care and conscientious supervision of Dr. Dewey, with whose name it will always be honourably associated.

Journal of Social Science, containing the Transactions of the American Association, No. xxix., August, 1892.

This number contains a sketch of the life of Dr. Pliny Earle, by Mr. Sombourn. It is, as might be expected, an appreciative contribution, but in no degree in excess of the simple truth.

Dr. Earle never fell into that convenient error of his associates, which led them to maintain that insane persons can be cared for properly in huge caravansaries, where all individuality is lost, and where medical skill and moral treatment become equally unavailing, since they are neutralized by the unfavourable inferences, material, mental and spiritual, which inevitably occur in those great aggregations of morbid humanity, subjected to mechanical management, and deprived of those natural conditions of human society which have so much to do with the restoration of alienated minds. . . . On the contrary, he advocated small asylums and individual care, and, although he came slowly to this last opinion, the reception of the chronic insane into private asylums, instead of sending them to the almshouses or the asylum prisons. No one will now question that Dr. Earle had mastered the literature of insanity more completely than any American who has written on that subject. He began his researches before he graduated, and he continued them almost to the day of his death. His last contribution to this literature was an article on "Curability of the Insane," furnished by him in 1891 to Dr. Tuke's "Dictionary of Psychological Medicine," of which he showed me the proof sheets when I last visited him in March, 1892. He had made arrangements for the publication by his executors of some portion of his writings, and it cannot be doubted that these will be an important part of what America has contributed to a knowledge of insanity. . . . He followed humbly and sacredly the *Inner Light*, with very little desire to set up his own enlightenment as the limit for all other persons. Few persons of my acquaintance leave more enviable reputation.

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A meeting of the Association, being an adjournment of the Annual Meeting, held at Buxton, was held on Thursday, November 16th, at 10.0 a.m., at the Rooms, 11, Chandos Street, Cavendish Square, W., under the presidency of James Murray Lindsay, M.D.

The PRESIDENT said that the meeting that morning was held for the express purpose of considering the report of the Rules Committee.

Dr. EAYNE said there had been one proposition mooted since the annual meeting, which did affect a considerable number of the rules, and he thought it would save time if that proposition were at once dealt with, and either accepted or rejected, so that the passing of the rules might be facilitated. The suggestion he had in mind was the formation of divisions or branches. The idea was not his, but he endorsed it fully, and he thought it would conduce very greatly to the welfare and strengthening of the Association. The principle was not a new one, for they had already local divisions for Scotland and for Ireland, and they knew how well they worked, how thoroughly they stirred up the interest of the members of those divisions in the Association, and what a large proportion of men occupied in their profession were members in those divisions as compared with England. He felt sure that if they had a further division in England it would have the same effect as it had in Scotland and in Ireland. He would leave Dr. Macdonald to go into the details of the proposition, because he

had really worked out the scheme. He thought it right to say that he felt sure Dr. Macdonald and all those interested with him in the matter regretted extremely that the idea had not occurred to them earlier, so that the suggestion could have been made to the Rules Committee before the revision had gone so far, because he felt sure that the rules had been most admirably revised, and with the greatest care and consideration. It was such a very great addition to the usefulness of the Association that he felt sure that the committee would not mind further trouble, supposing the resolution were adopted, having already given their services so willingly and ungrudgingly. He had great pleasure in moving—"That for the better working of the Association local divisions be formed, and that the Committee on the Rules be asked to amend their proposed rules, so as to carry this into effect."

Dr. MACDONALD said that he had great pleasure in seconding the resolution, which had been proposed in such kind terms by Dr. Rayner. He was sorry in asking the members to consider the question of "divisions" to think that so much confusion had been created. He was not proposing to introduce anything new; it was simply a rearrangement of their work. There were already in existence a Scotch and an Irish Division, and it was well known what good work they had done, and were doing. It might be said with regard to the proposal that there should be two divisions for England, that they already had a division, but his argument was that England was too large an area to cover, and it was not possible to fix meeting places at centres which would be convenient to more than a third of the members. Even if they did attend, it meant a great inconvenience, sacrifice of time, and great expense—he was not referring to annual meetings, that was a totally different thing. He thought if the divisions were formed many members, who had not at present joined, would be induced to attend, and, above all, that large body of members, the assistant medical officers, would have an opportunity of attending meetings and making contributions, which opportunity was not now given to them, because of the inaccessibility of the meeting places. He did not think there could be much difference of opinion with regard to that. It was proposed also that each division should nominate an Honorary Divisional Secretary, who would be in touch with the members. It was quite impossible for Dr. Beach, at the present moment, to be in touch with all the members. If the Council allowed £300 or £400 a year as travelling expenses, so that Dr. Beach could go all over the country, he thought then that he (the Secretary) would have an opportunity of knowing the members, but at the present time there was very little chance of that. The Divisional Secretaries would be able to stimulate the young members to work for the good of the Association, and fresh life would be thrown into it in many ways. It might be urged that there were not sufficient members to have these divisional meetings, but if a handful of members, such as they had in Scotland and Ireland, could hold good meetings, and could be productive of real, grand, scientific work, was it to be said that the English members, who were three or four times their number, could not have more than one meeting in three months? He would like to suggest one division of England, which he had in his mind, namely, a line from the Wash to the Bristol Channel, which would skirt the north of Northamptonshire. North of that division there were over 120 members connected with public asylums, and south of the division there were over 150. Surely the members in those divisions would not say that they could not have successful meetings after seeing what was done in Scotland and in Ireland. Apathy and indifference might be an excuse, but insufficiency of members, certainly, could not be urged. It had also been urged that the formation of these divisions would mean splitting up the Association. His idea, and the idea of many of their distinguished members, was that the present system was splitting up the Association, and that their suggestion was simply an endeavour to bring the members more in touch with each other, and to cement them better together. The more they met in different parts of the country the better known the Association would be, and the greater would be its power.

He was desirous, as far as possible, of steering clear of all dangerous ground, but it was no secret that there had been discontent. He thought it was pretty generally admitted that there was not that satisfaction and contentment reigning in the Association which they desired should reign, and he felt sure this idea of rearranging the work would do a great deal of good, and do away with much of that discontent. Many more members would be enabled to attend, and he was quite sure that it would be one of the most healthy things which had been introduced into the organization for a long time. He wished the line of division he had mentioned to be taken as a suggestion. He thought that the members would be surprised to hear that there were about 260 assistant medical officers in the three parts of the kingdom, and only about 92 were members of the Association. He thought that they should try and get more members from that large body from whom they might expect so much, and the idea which he proposed, he considered would go a long way towards that. He understood that if the proposal were carried notice would be sent to every member the same as at present, so that those members on the border line would have the opportunity of attending meetings in the north and in the south as well; the meetings would be open to everybody just as at present, only the places acceptable to a large number would be greatly increased.

Dr. NEWINGTON said the proposals contained in the paper which had been circulated would strike the members as an exceedingly broad one, for it contained three separate propositions, each one of which required to be separately discussed. The first one was that there should be branches formed for local business. There could be no objection to that if by local business they meant the reading of papers, the election of members, and the ordinary duties such as were now carried on in Ireland and Scotland, and he thought everybody would back up the proposition. He also thought that there could be no opposition to the branches having the power of electing an Honorary Secretary, who should be *ipso facto* an *ex-officio* member of the Council. He should wish to say plainly that there had been no organization with regard to these proposals on the part of the Rules Committee. Most of them thought that the Rules Committee died at Buxton, and therefore they did not meet to consider the propositions, but a few minutes before that meeting took place a few of the members talked the proposals over purely out of courtesy to the Association, which had honoured them by its instructions to consider the rules. With that exception they had had no organization; they had no whips, no circulars, nor editorials to help them; each one was going to act on his own views with regard to the new propositions, although the meeting would not be surprised that there would be a little hanging together on the part of the committee with regard to other more or less important matters. The second idea was that each Division should nominate an Honorary Divisional Secretary, and, as he said before, he thought there could be no objection to that. The third idea was a far more important one, and was to the effect that each Division should have the power of electing its direct representative to serve on the Council. He confessed that he had a perfectly open mind on that point, but he should want to hear something more than he had at present heard to induce him to vote for such a proposition. In reference to the propositions he had heard the word "reform" used, but they maintained on the Committee that they had carried out reforms to the greatest possible extent, and had even gone beyond the bounds of Parliamentary reform. In Parliamentary voting everybody had to attend at the polls to record his vote, but in their suggestions the member had an opportunity of smoking his pipe by the fire and at the same time recording his vote. He had simply to send his paper up to the Council and his vote would be recorded. He did not see the necessity for a sub-division of the voting power. Everybody had a vote, and he thought it would be for the interests of the Association if the votes were given and collected as a whole rather than in divisions. Under the arrangements proposed they might get a very fairly balanced Council on paper, but the balance would be upset by the way in which the officers were elected. Then serious

questions would arise as to whether the officers were to come from one part of the kingdom or from another part, and whether they were to represent county asylums, hospitals, private asylums, or unattached members of the Association. If the idea was carried he foresaw a split up of what might be now considered a perfect form of voting. It would cause a very great deal of friction, and would imperil the best interests of the Association. There was another matter which he thought ought to have been more fully dealt with by the gentlemen who brought forward the resolution. He believed that it was a cardinal point in all kinds of reform that where there was any alteration in the nature of the representation of a constituency of a kingdom there should be a proper distribution of seats. The proposition suggested that one-third of the Council—six out of eighteen—should be allocated to Scotland and Ireland, and one-third to the South and one-third to the North of England. He found that there were 470 members. The odd 70 were foreign, colonial, corresponding, and honorary members, none of whom could take part in the management of the affairs of the Association, so that there were exactly 400 members left to deal with. Out of the 400 there were 48 residing in Scotland and 44 in Ireland, or nearly a quarter of the 400, so that the proposition meant that one-quarter of the Association should have one-third of the voting power. He thought that could not be just, and the injustice—he used the word quite inoffensively—was much exaggerated when they came to England. Dr. Macdonald had suggested one line of division, and he (Dr. Newington) proposed to give another which he thought they would agree was a very fair one. He proposed to divide England into north and south divisions in the following ways—a line bounding the north division on its southern aspect, moving from east to west, would be Norfolk, Rutland, Leicester, Stafford, and Salop; the northern line of the south division would be Suffolk, Cambridge, Huntingdon, Warwick, Worcester, and Hereford. Taking that line, it would be found that in the whole of England there were roughly 308 members, in the north 98, and in the south 210; so that they were proposing that the 98 gentlemen in the north should have the same elective power as the 210 in the south. That could not be right. To put it another way, it would be seen that the gentlemen south of the line had a clear majority in the Association, but yet the proposition really meant that one man in the north would have the same powers as two men in the south. For those reasons he entirely objected to that part of the proposition. To sum up his position, he said that he would gladly go with the other members in forming branches for the reading of papers and other such business, but he did not see the utility of giving those branches power to elect representatives on the Council. He thought there would be a great difficulty when they came to the subdivision.

Dr. MERCIER said that if it was found that the propositions were for the benefit of the Association he felt sure that they would all be delighted to adopt them, but it was necessary that they should see clearly what they were doing before they undertook a too far-reaching reform which would overrule the constitution of the Society. Up to the present he did not see that any cogent reasons had been given to induce the members to adopt the propositions, although his mind was perfectly open on the matter. With regard to the voting power, he thought that it was a matter which did not necessarily go with the question of formation of branches, although it was put down on the same paper. He would like to point out the difference between the method of voting now proposed and the method of voting proposed by the Rules Committee. The Rules Committee proposed that every member of the Association should have a vote, and a vote which could not be taken from him by reason of travelling and expense, because he could send his vote up to the Association to be recorded. Under the proposed system of voting that power would be taken from him, because voting would be restricted to the members residing in the district. For his part he would strongly object to have his vote restricted in that way. The committee claimed that they had spent a great deal of time in the revision of the rules, and he trusted that they would have a fair consideration at their

hands, and any proposals which the Association might think fit to adopt they would be only too pleased to embody.

Dr. TURNBULL said that he could not agree with Dr. Mercier that cogent reasons had not been put forward for the propositions. He thought everybody knew the great difficulties there were in the way of members attending their meetings, and it could not be expected that members should come all the way from the north of England to London both to the Quarterly Meeting and Annual Meeting, so that it would be for the convenience of the members to have the meetings differently arranged. Under the present propositions the member was asked to attend the same number of meetings as formerly, the only differences being that the meetings were held nearer his home, and he had the advantage of attending other meetings if he liked. The experience of other Associations was that a division of that kind would promote the work of the Association and increase its membership; and it was certainly too much to expect the General Secretary, who had all the work of the Association to attend to, to keep in touch with the men who were living in the distant parts of England. The scheme was really a development on the lines upon which the Association had already gone. When the Association was first formed there was only one meeting—the Annual Meeting—but when it grew in numbers and vigour arrangements were made for holding other meetings, and it was at once felt that members from different parts of the kingdom could not attend the meetings if they were always fixed in one district. Consequently it was arranged that two of the meetings should be held in London, or in England at any rate, two of them in Scotland, and one or more in Ireland, as might be desirable, and there was also a distinct understanding that notice of all these meetings should be sent to every member of the Association. Dr. Newington had discussed another question, that of local representation, but they were quite willing to meet any arrangement that might be thought desirable; the only thing they wished to do was to establish the principle. He thought that the question of local representation was not before the meeting at that moment, and he would leave his remarks on that subject until later.

Dr. STANLEY GILL said that the propositions savoured very much of Home Rule, and he was inclined to think that the formation of branches would lead to the disruption of the Society altogether, because the number of members was not sufficiently large to permit of it. He certainly should vote against the proposition.

Dr. ELKINS said that, speaking as an Assistant Medical Officer, he could not help saying that he was in favour of the propositions that had been brought forward. He certainly thought that it would enable assistants to attend the Quarterly Meetings in the various districts, and to take more interest in the work of the Association generally. The future success and prosperity of the Association depended on the joining of the younger men, and if the branches were formed he felt sure that Assistants would come forward more than they were enabled to do at present. He thought it was quite right that every branch should send its representative to the Council. He could not see how the proposals were revolutionary. They seemed to him to be on the ordinary lines of development of any Society, and not in any way opposed to the Association. There was plenty of proof of the result of the formation of the branches in Scotland and in Ireland. It was quite impossible for the majority of Assistants to attend the meetings unless they lived round London, Edinburgh, or Dublin. He felt sure that everyone would agree that the remote districts should have more representatives than the districts nearer home. He thought that there was a legitimate ground for discontent, because in many parts of England and the North they were out of touch with the Association altogether, and if the members could not come to the Association it was their duty to go to them. He heartily supported the propositions.

Dr. HACK TUKE said that when he first read the propositions which had been brought forward he felt considerable hesitation in regard to them. He sup-

posed that one became more conservative as one got older, and in regard to some of the propositions he did feel considerable doubt as to their working power, but the more he considered them as a whole the more he felt disposed to look favourably upon them. As regarded the general principle he was quite prepared to support it. He felt that there had been very considerable apathy with regard to the members of the Association and those engaged in lunacy work who were outside the Association. He was glad to see any indication whatever of fresh life, and he looked upon the present movement, speaking quite generally, as an encouraging sign of an increased interest being taken in the Association. He quite agreed with the first proposition, and he thought that the two divisions suggested were the best, although that was a point of detail. With regard to the appointment of an Honorary Divisional Secretary he thought it should be borne in mind that although the General Secretary's work was to be lightened his supreme power as a Secretary was not in any way to be imperilled, and that ought certainly to be held in view. He did, however, object to the electing of the representative on the General Council, and on that point he quite agreed with Dr. Newington. With the permission of the President he would read a portion of a letter from Dr. Howden, in which he said he thought that the modified form of Home Rule now asked for should be granted. He (Dr. Tuke) was reminded of what the old Lord Holland had advised when a new departure was proposed in politics. He said: "*Fiat experimentum in corpore vili*. Let the experiment be first tried on Scotland." (Laughter.) Well, it had been tried in that country, and had answered. He was, therefore, encouraged to extend the principle to England.

Dr. DEAS said that as a member from a rather remote portion of England he wished to express his concurrence with the general principles of the change. He was glad that so cautious a man as Dr. Hack Tuke saw his way to accept the principle of the proposition. He felt sure that from his long and intimate connection with the Association he would be the last man to lend himself to anything that savoured of a revolutionary change in the constitution of the Association. Speaking for himself he did not see anything revolutionary in the change. The divisions in Scotland and Ireland showed that the change was justifiable, and it was only justice for England that it should be carried out. They all recognized with the utmost satisfaction the progress which the Association had made. It had done a great deal of good in promoting everything connected with psychological medicine, but there was something which had not been quite met by the existing arrangements of the Association, and the time had come when it was necessary for them to consider whether there was not a block put on the Association in connection with the inducements afforded to men living in the country districts to promote the objects of the Association, and in connection with encouraging men in local centres to meet and talk over matters which affected them individually or the district in which they lived, and which could not be dealt with at the ordinary meetings of the Association. There were differences of opinion in different parts of the country as to the forms and causes of insanity and with regard to the working and organization of asylums. A great field was open in that direction, and the proposed division would immensely facilitate the work. He lived in a somewhat remote part of England, and from that and other circumstances he had been unable to keep in touch with the Association and to attend the meetings without trenching on his work, but if a Southern division were formed, and that division had an opportunity of arranging local meetings, he would have more opportunity of taking part in the Association. He had looked through the Journal for the last four years, and he found that there had been eight quarterly meetings held in London, three in the rest of England, five in Scotland, and at least two in Ireland. He thought it was a great argument in favour of the proposed division that Scotland had held five meetings, while only eight were held in London and three in the rest of England. He had great pleasure in supporting the proposition which had been made.

Mr RICHARDS said that the point that ought to be discussed was by what arrangement they could get the greatest scientific outcome from the Association. At the present time they only met four times a year, and there were only about five or six papers read and discussed. He thought that was a very good argument in favour of the proposed division. He would even go farther, and divide England up into three or four divisions. He thought that if they did not concede this division the members in the North would before long take the matter into their own hands, and that might cause a split in the Association.

Dr. NICOLSON said that he thought they were wasting time with regard to that portion of the proposal, because they were practically unanimous that it was a desirable movement. He was glad to hear that Dr. Tuke, who was so familiar with the working of the Association, and who was, therefore, in a position to judge, had spoken in favour of the proposal. He most cordially supported the proposition.

Dr. ERNEST WHITE said that he believed the meeting would prove practically unanimous in favour of the formation of divisions or branches. Some two years ago he had proposed to the Council, and was then ably seconded by Dr. Wigglesworth, whom he regretted not to see present, "That Colonial Branches should be formed for the election of members and discussion of papers upon scientific subjects relating to insanity, and should be constituted upon similar lines to the Colonial Branches of the British Medical Association." This proposal was the outcome of an application from Dr. Greenlees, his former Assistant, now superintendent at the Grahamstown Asylum, for permission to start a branch for the Cape Colony. He was uncertain what action was taken in this matter at the annual meeting which followed, and which, unfortunately, he could not attend. Speaking as a member of the Rules Committee, he would urge the meeting that before the principle of divisions or branches is accepted and adopted it should be made quite clear that these branches should only have power to discuss scientific matters and matters of local interest in addition to the electing of members, and not in any way be able to infringe the prerogatives of the Council and central body of the Association, that is, they should have neither general administrative power nor any control of finance. If that were done he thought there would be no difficulty in their agreeing to the proposition. He presumed that the motion was a general one, viz., that branches be formed, and that it did not state that there were to be two divisions for England and one each for Scotland and Ireland, for that would not be proportionate representation.

The PRESIDENT said that the motion was a general one, and simply stated that branches should be formed.

Dr. NEWINGTON asked to be allowed to put himself straight with the meeting. He had understood that Dr. Rayner had invited the meeting to decide for the sake of convenience on new and general propositions that were outside the rules as revised by the Committee. He quite understood that Dr. Rayner's proposition was intended to raise all the questions which had been associated with the general proposition of branches.

Dr. WHITCOMBE said he thought the objects which they all had in view could be attained just as easily by an increased number of meetings of the Association generally as by the proposed divisions, especially if the meetings were held all over the kingdom. He had the greatest sympathy with the assistant medical officers of asylums, because it was very rarely that they had an opportunity of taking part in their discussions. He had endeavoured to obtain the opinions of assistant medical officers on the matter, and they agreed with him that it would be best to increase the meetings instead of cutting up the Association into branches, as it was not large enough. Complaints had often been made of the Association being governed too much by officials, and yet the formation of branches would add considerably to the officials and increase their representation on the Council. The reason why assistant medical officers could not attend the meetings was that the meetings were few, and naturally the superintendents

themselves desired to attend as often as possible. He had attended every meeting for the last four years, and consequently his assistant had not been able to attend a single meeting. If the number of meetings were increased the assistants would have a chance. He wished to know whether the proposed division would do away with the quarterly meetings, because, if so, he thought it would be fatal to the Association. In his opinion the splitting up of the Association into branches would do it a great deal of harm.

Dr. YELLOWLEES said that the success which had attended the branch meetings in Scotland was a very good argument in favour of the proposition. Everything that Dr. Whitcombe had said he thought went in favour of the branch meetings. It had been found impossible to increase the ordinary meetings and get good attendances, but the branch meetings would put new life into the Association. The meetings would undoubtedly be productive of good results, and would not in any way interfere with the business of the Association. He heartily supported the proposition.

The resolution was then put to the meeting and carried.

Dr. DEAS moved that the mover and seconder of the resolution be added to the Committee for the revision of the rules.

Dr. WEATHERLY seconded the motion.

Dr. NEWINGTON said that there was at the present time no Committee.

Dr. DEAS said that that being the case he would move the reappointment of the Committee, with the addition of Dr. Rayner and Dr. Macdonald.

Dr. OUTERSON WOOD seconded the motion, which was carried.

Dr. TURNBULL moved :—"That each division shall appoint a Divisional Secretary, who shall be *ex-officio* a member of Council, and shall elect representatives to serve on the Council in such number as the Association may from time to time determine." The Association, he said, had practically adopted the system of branches, and it was essential that there should be some machinery for the carrying on of the branches. He quite agreed with what had been said with regard to the branches confining themselves to scientific work, to the election of members, and local affairs generally, and that they should not interfere with the larger affairs which concerned the whole Association. It was necessary to have something to keep the branches in touch with the Association, and he did not see how it could be better done than by allowing them to elect representatives on the Council.

Dr. YELLOWLEES said that there were two matters contained in the resolution—first, that a Divisional Secretary should be appointed, and, secondly, that the division should have power to elect direct representatives on the Council. The two questions were quite different, and he thought Dr. Turnbull should divide his resolution.

Dr. TURNBULL, on the suggestion of Dr. Yellowlees, said that he would divide his resolution, and would accordingly move, firstly :—"That each division shall appoint a Divisional Secretary, who shall as such be a member of Council."

Dr. CAMPBELL seconded the resolution, which was agreed to.

Dr. TURNBULL then moved :—"That each division shall elect representatives to serve on the Council in such number as the Association may from time to time determine."

Dr. CAMPBELL seconded the resolution.

Dr. ERNEST WHITE proposed as an amendment the direct negative. The meeting, he said, had adopted practically with unanimity the suggestion that divisions be formed, but on the distinct understanding that those divisions should not in any way interfere with the Council. They had since consented to the Divisional Secretaries being *ex-officio* members of Council, to represent the views of the divisions to that body, and now the proposer and seconder of this resolution wanted to relegate the election of members of Council to those divisions. It was obvious that this could not be permitted, for it would upset entirely the principle of the Council being elected by the general body of members of the Association.

Dr. BOWERS seconded the amendment.

Dr. MICKLE wished to know whether it was intended that the Divisional Secretary should be included in the representatives that the branches would have power to elect, or whether he would be an addition to the number.

Dr. TURNBULL said that he would be one of the representatives.

Dr. BONVILLE FOX said he thought the Divisional Secretaries should be *ex-officio* members of the Council, but that the branches should not have power to elect other representatives.

Dr. SPENCE said he thought it was only a reasonable thing that the divisions should have someone to represent them on the Council. It seemed absurd to give them work to do, and not to give them representation. He thought that it would be a very feasible thing to give the branches power to send one member to the Council in addition to the Secretary, and that the whole of the members should have power to elect the other members. There should be representatives on the Council elected by the divisions, and representatives elected by the whole body of members of the Association.

Dr. MACDONALD said that a great deal might be said in favour of allowing branches to return direct representatives, but he was sure the matter would crop up again before long, and then perhaps the Association would be more willing to consider it.

Dr. YELLOWLEES said that the Council at present consisted of officials and of certain elected members. He wished to know whether the proposal was that those members should be elected by the local branches and sent up to the Council?

Dr. TURNBULL said that that was his resolution.

Dr. YELLOWLEES said if that were the case he should oppose it, because it almost amounted to a revolution, and went a great deal farther than the form proposed. He agreed that they should have a Secretary, and, as Dr. Spence suggested, he thought they might have another representative as well, but if the motion was to be so complete as Dr. Turnbull had said he would oppose it.

Dr. TURNBULL said that all he wished was that the branches should have a certain amount of representation. If it was thought best that the representation should consist of one member elected by the division, and that the others should be elected at the annual meeting, he was quite willing to accept it. If it was in order he would add to his resolution the words, "and send one representative to the Council."

A MEMBER said that Dr. Turnbull was proposing a motion and moving an amendment to it, which certainly could not be done. The motion must be taken on its merits.

Dr. DEAS said that the extent of the representation was entirely a matter for the Committee. The resolution was only to decide that there should be a representation of the branches on the Council.

The amendment was carried by 17 to 10.

The PRESIDENT said that there was no other proposition before the meeting, and he now suggested that the rules should be taken one by one, and amendments proposed where it was thought necessary.

CHAPTER I. (CONSTITUTION).

Rules 1 and 2 were agreed to.

On Rule 3 ("The Association," etc.) Dr. IRELAND said that as the rule stood it would include women. He thought that the admission of women was a question that ought not to be hurried through without a discussion, and he proposed, therefore, as an amendment, that the old rule, "That the Association should consist of (1) legally qualified medical men," etc., should be allowed to stand.

Dr. KEAY seconded the amendment.

Mr. RICHARDS supported the amendment. He would suggest that the word "male" be introduced before the word "practitioners." There could be no mistake then, and it would not allow anyone to say that the word "men" included women.

Dr. YELLOWLEES said that at the present day it would not do to keep women out of the Association. The law had given them the right to practise, the British Medical Association had admitted them, and it would be unwise conservatism to exclude them. There was even a stronger reason why they should be admitted. Science knew nothing about sex, and the question of delicacy could not be brought forward. Women naturally knew more about women than men, and their assistance would be of very great value. The opinion of the American Superintendents was that the lady doctors were of very great value and assistance. He intended having a female medical assistant as soon as he could get one, and he could not understand why they should be excluded from the Association.

Dr. SAVAGE said that there were many Societies which admitted lady members. Of course there was a great difference between admitting them to the Association and allowing them to take part in the business of the Association. He quite thought the time had come when women should be recognized as assistants.

Dr. IRELAND said that there was a great difference between recognizing the right of women to be admitted to the profession and admitting them as members of a particular Association. There were many matters which came before the Association which it would be very disagreeable to have to discuss before women.

Dr. BENHAM said that as the seconder of Dr. Howden's amendment at the Buxton meeting he desired to say that the amendment was not moved with the idea of voting against the admission of women, but simply because the matter was sprung upon them at the end of a discussion without the Association having notice of it. He had since considered the question, and he thought that as ladies were now admitted to the profession, and as superintendents were taking them into asylums, it was only right that they should have the advantage of coming to their meetings, and hear matters discussed with regard to the insane and with regard to the treatment of the insane.

Dr. WHITCOMBE said that at first he was as strong an opponent as anyone to the admission of women to the medical profession, but when it was decided to admit them he sank his opinion. If ladies were to be admitted to the profession at all, it was only right that they should be admitted to all the privileges attending thereto. He was glad to hear Dr. Benham's explanation of the resolution passed at Buxton, because there was some difference of feeling as regards the action of the Association at that meeting.

Dr. BONVILLE FOX said that he only voted for the amendment at Buxton on a question of English grammar, and not because it was proposed to admit ladies to the Association. He was now going to vote for their admission.

Dr. Ireland's amendment was then put, seven voting for it and 23 against. The new rule providing for the admission of ladies was then agreed to.

Dr. RAYNER proposed that the word "registered" be inserted before the word "practitioner," which was agreed to.

Dr. YELLOWLEES proposed that it should read "registered medical practitioners," which was agreed to.

On Rule 4 the PRESIDENT said that since it had been decided to admit ladies he thought that it should be specially mentioned in the rules.

Dr. WHITCOMBE thought the necessary alteration might be left to the Rules Committee.

Clauses 1 and 2 were agreed to.

On Clause 3, Dr. WHITE suggested that as Branch Secretaries were to be appointed the word "branch" should be inserted before the word "Secretary," as the Branch Secretaries would have the right to convene their own meetings.

The PRESIDENT said it was a matter for the Rules Committee.

Clause 3 was then agreed to.

Rules 5, 6, 7, 8, 9, 10, and 11 were agreed to.

On Rule 12 Dr. MACDONALD said he thought it was going too far to bring a member's name before the Annual Meeting because his subscription was not paid. He thought the name should first be brought before the Council, who

should be asked to report. Perhaps it could be left to the Committee to alter the rule.

Agreed that the rule should be so altered.

On Rules 13, 14, 15, 16, 17, 18, 19, 20, 21, and 22 Dr. NEWINGTON said that, with regard to Rule 18, he thought it was only right that the honorary members should be restricted from voting for the Council. The honorary members in a great many instances were prevented from taking part in the discussions, and it was only right that they should not be allowed to vote.

The PRESIDENT said the introduction of the words "except the power of voting" would meet Dr. Newington's suggestion.

Dr. MACDONALD proposed that the word "general" should be inserted before the word "secretary" in Rule 17.

Dr. TURNBULL said that it was mooted that the Association was going to be registered, and if that were the case the rules would require alteration. He proposed, therefore, that if the Association were registered the Rules Committee should be empowered to alter the rules where necessary.

Dr. HACK TUKE agreed with Dr. Turnbull.

Dr. NEWINGTON said the question was discussed at Liverpool, but it was then decided that there was no question of registration before the meeting. Of course, if the Association were registered an alteration of the rules would be necessary.

Rules 14 to 22 were then agreed to.

CHAPTER II. (OFFICERS).

On Rule 1, Dr. DEAS wished to know whether the four Divisional Secretaries would be considered as officers of the Association.

Dr. NEWINGTON—Certainly.

Dr. CAMPBELL moved that the two auditors should be excluded. He thought the time had come when the Association should have a paid auditor. He moved formally, "That the words 'a paid auditor' be inserted instead of the words 'two auditors.'"

Dr. MERCIER protested against the removal of the honorary auditors. They could not have too many checks as regarded auditing, and a paid auditor was not always to be depended upon. If a paid auditor were engaged he suggested that the honorary auditors should be retained as well.

Dr. HACK TUKE said he quite agreed with Dr. Mercier. The Association as a fact had had a chartered accountant for a number of years. He was strongly in favour of the honorary auditors being retained.

Dr. BAYNER said he fully agreed with Dr. Mercier that the honorary auditors should be retained.

Dr. BONVILLE FOX said he also should vote against any change being made with regard to the auditors.

Dr. MACDONALD said that if the auditors were to remain *ex-officio* members of the Council they would now have an unwieldy number on the Council.

Dr. SPENCE wished to know whether Dr. Campbell proposed to exclude the auditors from the Council only, or to do away with them altogether.

Dr. CAMPBELL said his motion was that Rule 1 should stop at the word "Journal."

Dr. DEAS seconded the motion, which on being put to the meeting was lost, 11 voting in favour of it and 18 against it.

On Rule 2, Dr. DEAS pointed out that Rule 2 would require to be altered in consequence of the "divisions" having been adopted. The Secretaries would now be elected by the members resident in their divisions.

Rule 2 was then agreed to.

On Rules 3 to 5 Dr. FOX said that there was some question at the last Annual Meeting as to whether the President should have the power of interpreting the rules.

The PRESIDENT said that he was bound to maintain the dignity of the chair.

If his ruling were appealed to he should expect it to be obeyed. He would rather vacate the chair than suffer any impositions of that kind.

Rules 3, 4, and 5 were then agreed to.

On Rules 6 to 12 the TREASURER (Dr. Macdonald) said that some difficulty was found at Buxton in fixing the date of the Annual Meeting owing to the date at which the accounts were made up.

The PRESIDENT said he had received a letter from the Treasurer, Dr. Paul, in which he stated that the accounts should be terminated on the 30th June.

The SECRETARY—They do terminate on that date now.

Dr. OUTTERSON WOOD said the present system worked well and in no way clashed with the Annual Meeting.

Dr. MACDONALD said he should move that it be an instruction to the Rules Committee to consider the dates when the accounts should be made up so as not to interfere with the Annual Meeting.

Dr. NEWINGTON said it had been considered by the Rules Committee, by the Council, and by the Association, and it had been purposely left open by the Rules Committee so that the Association could take the matter into its own hands at the proper time.

Dr. BOWERS proposed that the words "and audited by a paid accountant appointed by the Council" should be inserted after the words "balanced yearly."

Dr. MACDONALD seconded the resolution.

Dr. YELLOWLICKS said that Rule 9 stated that a professional accountant was to be engaged. If the words "and audit them" were inserted at the end of that rule it would meet Dr. Bowers' suggestion.

Dr. WHITCOMBE said he did not think the Association would be so foolish as to allow the Treasurer to engage his own auditor.

Dr. Bowers' amendment was then put to the meeting and declared lost, 12 voting in its favour and 13 against.

Rules 13 and 14 were then agreed to.

Rules 15 and 16, (the Secretaries) were agreed to.

On Rule 17, Dr. RAYNER proposed that the rule be omitted. He did not wish to say anything about the principle of paying the expenses of the Secretaries, but it was clear that the Association could not afford it.

Dr. CAMPBELL seconded the proposition.

Drs. WHITE, NEWINGTON, HACK TUKE, and DEAS supported the proposition on these grounds, and it was agreed to.

Rules 18, 19, 20, 21, 22, 23, and 24 were agreed to.

On Rules 25 to 30 ("the Registrar"), Dr. SPENCE said that with regard to Rule 28 he had received a letter from Dr. Tuke asking whether it was necessary to print all the names of those who had received certificates of proficiency in nursing and attending on the insane. The list would take up a whole quarterly number of the Journal, and he proposed that only the names of those who had received certificates during the past year should be included.

Dr. TUKE seconded. He said it was impossible to give all the names.

The amendment was agreed to.

Dr. YELLOWLICKS said that Rule 27 required alteration in the same way.

The PRESIDENT—That will be referred to the Rules Committee. It certainly wants altering.

Rules 25 to 30 were then agreed to.

CHAPTER III. (THE COUNCIL).

On Rule 1 Dr. DEAS said he should move that the rule read—"That the affairs of the Association shall be managed by a Council consisting of (1) the President, Ex-President, President-Elect, General Secretary, Registrar, Editor or Editors of the Journal; (2) 18 elected members; and (3) four Divisional Secretaries, to be elected by the members in each division."

Dr. NEWINGTON said Dr. Deas was mixing up two things. The Rules Com-

mittee would take note of his suggestion with regard to distinguishing the Secretaries, but apparently Dr. Deas wished to leave out the auditors.

Dr. DEAS said that was part of his amendment.

Dr. WHITE said the real point was the omission of the auditors. He thought it would be a great mistake to take them off the Council. The auditors knew the inner working of the Association, they were a check on the Treasurer, and they were most important members of the Council.

Dr. Deas' amendment, which was seconded by Mr. RICHARDS, was then put to the meeting and lost, seven voting in favour and fifteen against.

Rule 1 was then agreed to.

Rules 2, 3, and 4 were agreed to.

On Rule 5, Dr. NEWINGTON said he should like to add the word "ordinary" before the word "members," so as to shut out the honorary and corresponding members.

Dr. CAMPBELL said that the Association only wished to exclude them from the business matters, but they would be glad to see them at the ordinary meetings for the discussion of scientific matters, etc.

Dr. NEWINGTON said that if that were the wish of the meeting the committee would bear it in mind. He thought, however, that it would be agreed that they were not to receive voting papers.

Dr. DEAS said that in Rule 4 it was laid down that candidates for election to the Council should have their nomination sent in two months before the Annual Meeting, and Rule 5 stated that a list of retiring officers and members of Council, with the number of their attendances, should be sent to every member. The information given to members as provided by Rule 5 was of no use, because the nominations had to be sent in before they received it.

Dr. NEWINGTON said the information would be of no use in that connection, because there was no question of voting for retiring members of Council, but new men who had not before been on the Council. The information was intended to show the members how the members of the Council fulfilled their duties.

Dr. SPENCE said that if a member of Council did not attend during the year his name should be struck off.

Dr. WHITE said it was a most important matter that members of Council should attend.

Dr. SPENCE said that the clause was really a compromise between the various members of the Committee. Some of the Committee wished to make it much stronger, and he still thought it did not go far enough. The proposition he would like to make would be that each member should have sent to him a month before the Annual Meeting a paper giving the number of vacancies to be filled up at the Annual Meeting, the names of those who were not eligible, and a list of those men whom the Council suggested as suitable men to fill the vacancies. Every member would have an opportunity then of putting his pen through any or all the names, and substituting others.

Dr. NEWINGTON said they had gone even further than that. Everybody was at liberty to vote for whom he liked.

Dr. DEAS said that if anything would lead to the proposal which had been brought forward that day being carried, it would be the election of members of Council. It was proposed to have direct representation, but it was carried out in a most unworkable manner. The proposal that the members in the different divisions should each elect a proportion of members of Council would be found before long to be the only solution of the question. The present rule would only work out into an absurdity.

Dr. MERCIER said the same method was adopted by the Royal College of Surgeons, and worked very well. He could not understand Dr. Deas' objection.

Dr. WEATHERLY said that, as they all knew, he very much wanted the Association to adopt proxy voting. His resolution on that point, however, was not

adopted, and as a compromise it was carried that the Council should be elected by individual members by proxy voting. The objections which Dr. Deas put forward to the proposed arrangement could be urged just as much if the divisions each elected a proportion of the members of Council.

Dr. CHAPMAN said that possibly those members who wished to nominate somebody would forget all about it until the two months had expired and they received the circular.

Dr. YELLOWLEES said he quite agreed with Dr. Chapman, and he wished to propose an amendment. He would propose: "That Clause 4 be omitted, and Clause 5 modified so that a circular be sent by the General Secretary to each member one month before the Annual Meeting, giving a record of attendances at Council and names of retiring members, whether through lapse of time or non-attendance, and that each member return a voting paper (which shall accompany the circular) with the names of those he desires to be elected to the vacancies, within fourteen days, to the Secretary, duly signed."

Dr. WEATHERLY seconded the amendment, which was carried by sixteen votes to two.

On the amendment being put as a substantive motion,

Dr. BOWERS proposed that the words "or by non-attendance" be excluded. He thought it was possible to conceive that an important member of Council might not be able to attend any of the meetings during one year, especially seeing that such meetings might be comparatively unimportant.

Dr. WHITE thought it was not asking very much to say that a member of Council should attend one meeting out of possibly five or six. It was not too much that he should be asked to attend once.

Dr. BONVILLE FOX said there was an additional reason why entire non-attendance in a year should vacate a man's office. By the form of nomination, the nominator had to state that the person nominated was "willing, if elected, to serve on the Council." He thought that when a man assented to serve on the Council he might be expected to do so.

Dr. DEAS said that form of nomination was done away with.

The amendment was not seconded, and the substantive motion was agreed to.

Dr. BONVILLE FOX asked whether the rule just passed specifically stated that if a member of Council did not attend at all his seat was thereby vacated.

The PRESIDENT said that was so.

Dr. YELLOWLEES said that being the case it was obvious that Rule 6 required a verbal alteration to state that no member should give more votes than the number of vacancies which had occurred.

Agreed to.

Rules 7, 8, 9 and 10 were agreed to.

RULE 11 (NOMINATION OF OFFICERS).

Dr. NEWINGTON said this had already been provided for by Rule 2, Chapter 2.

Dr. YELLOWLEES thought it was a matter for the Council's convenience as to when they should meet. This rule required that the circular should be sent out at least two months before the Annual Meeting.

Dr. NEWINGTON thought that the Rule was redundant.

On Rule 12 ("at least three months," etc.), Dr. NEWINGTON said there were two other rules dealing with this question in which the number of months was stated to be two instead of three. He did not think that three months would work.

Dr. DEAS suggested that some little modification was required in connection with the instruction previously carried with regard to the formation of divisions. If it was understood that the ordinary meeting was to be held in the division, the time and place must be settled by the Secretary and members residing in the division. The rule would have to be altered accordingly.

Rules 13, 14, and 15 were agreed to.

CHAPTER IV. (MEETINGS).

On Rule 1 ("The meeting of the Association," etc.), the PRESIDENT said that rule would have to be referred back to the Committee.

Dr. YELLOWLEES said the word "ordinary" could not possibly refer to district meetings.

Dr. DEAS asked what was the meaning of "ordinary" meetings as specified in Rule 1. It seemed to him that there would be no "ordinary meetings," but they would be supplanted by the "divisional meetings."

Dr. MERCIER said surely there would be "ordinary meetings" of the whole Association.

Dr. DEAS said the only meetings would be annual and special.

Dr. MERCIER asked if it was intended to do away with the ordinary meetings altogether?

Dr. DEAS said that would obviously follow. In order that the matter should be argued out he would move that the word "ordinary" be omitted. They would then have to alter the word "three" into "two."

Dr. CAMPBELL seconded.

After a long discussion, in which Drs. Yellowlees, White, Mercier, Spence, Fox, Whitcombe, Rayner, Wood, and Newington took part,

Dr. DEAS expressed his willingness to withdraw the motion on the condition that the word "divisional" should be inserted, and on the suggestion that the word "general" should be substituted for "ordinary." He was quite prepared to move that the meetings of the Association should be of four kinds, annual, general, divisional, and special.

Agreed to.

Rule 2 ("Regulations to govern proceedings at meetings") was agreed to.

On Rule 3 ("Any member unable to attend," etc.), Dr. CAMPBELL thought it might be advisable to limit that rule.

Dr. YELLOWLEES objected to the rule as being unreasonable.

It was resolved that Rule 3 be omitted.

Rules 4, 5, 6, 7, and 8 were agreed to.

On Rule 9, Dr. BONVILLE Fox asked the Rules Committee whether it would not be desirable to insert the words "annual" or "special."

Dr. YELLOWLEES said it might happen that at any of the ordinary general meetings of the Association it would be very needful that some resolution which implied some expenditure of funds should be dealt with.

Dr. NEWINGTON saw no objection to Dr. Fox's proposal to add the words "or special."

Agreed to.

Rules 10 and 11 were agreed to.

On Rule 12 (Ordinary meetings), Dr. DEAS suggested that the word "general" should be substituted for "ordinary" in all the sections.

Dr. MERCIER presumed that these rules would have to be modified in accordance with the decision of the meeting.

The PRESIDENT said that that would no doubt be the case.

The rule was agreed to.

Rules 13, 14, 15, and 16 were agreed to.

On Rule 17 ("No resolution," etc.), Dr. YELLOWLEES thought that rule was rather tying the hands of an ordinary meeting.

Dr. NEWINGTON said the rule was really framed as the result of actual facts that had occurred. For instance, with regard to the motion to be brought forward by Dr. Campbell, although it might well be discussed by the present meeting, which was a very large and representative one, he did not think the word of the Association should be pledged to a resolution of that kind by an ordinary divisional meeting. There ought to be some restraining power to enable the Council or President to say, "You may discuss this as much as you like, but the vote of the Association cannot be taken at this meeting."

Dr. YELLOWLEES agreed that it would not do to let a Divisional Meeting

commit the Association to any course of action. He, however, objected to the idea that a question should not be put to the vote. He saw no reason why a divisional meeting should not express its mind upon a certain question, and make a representation to the Council.

Dr. NEWINGTON said what the rule stated was that no resolution should be submitted to a vote against the approval of the President or Council.

Rule agreed to.

Rules 18 (special meetings), 19, 20, and 21 were agreed to.

On Rule 22 Dr. DEAS asked what length of notice was to be given of a special meeting?

The PRESIDENT thought that might surely be left to the Secretary.

Dr. DEAS said that the time for general meetings was fourteen days by Rule 14.

The rule was agreed to.

Rules 23 and 24 (strangers at meetings) were agreed to.

CHAPTER V. (COMMITTEES).

Rules 1 to 10 were put *en bloc*.

Dr. BONVILLE FOX said there was a consequential amendment in Rule 5, which would have to provide that no committee should be appointed, etc., "except at an annual or special meeting." That would, of course, be necessary in consequence of the alteration in Rule 9, Chapter 4.

Agreed to.

Dr. MERCIER asked when the rules would come into operation supposing they were adopted at that meeting?

Dr. WHITCOMBE said the meeting was not adopting them. They were merely instructing the Committee.

The PRESIDENT said the rules must come before the Association again for confirmation after the Rules Committee had dealt with them.

Dr. WHITCOMBE presumed that the rules which had been approved would stand, and the other rules would be amended. It would be very unfortunate if they had to go through the rules again at some further meeting, and then to have to approve them at a special meeting subsequently called.

The PRESIDENT said what he meant was that the Association would have the opportunity of seeing the amendments.

APPENDIX TO RULES (FORMS A, B, C, AND D).

Dr. PERCY SMITH said in form D the Registrar was not mentioned. He was *ex-officio* a member of the Council.

Dr. FLETCHER BEACH said the form as printed followed the old form; undoubtedly the Registrar should be included.

PART 2.—REGULATIONS.

1.—THE CERTIFICATE IN PSYCHOLOGICAL MEDICINE.

Dr. BONVILLE FOX said it should be made perfectly clear what was meant by the term "sufficient opportunity for the study of mental disorders," as otherwise it might give rise to some difference of opinion.

The PRESIDENT said that would appear to be provided for by the words "or they shall give such proof of experience in lunacy as shall in the opinion of the President be sufficient."

Dr. DEAS said in that case the words "affording sufficient opportunity for the study of mental disorders" might be omitted. If there was no machinery for defining the sufficient opportunity the clause was unnecessary.

Dr. MERCIER asked why there should be a certificate of having resided in an "asylum?"

Dr. NEWINGTON thought "institution" would be the better word. "An institution for the treatment of insanity" would be quite sufficient.

This was agreed to.

Dr. YELLOWLEES suggested that it would be better to put in "having attended a qualifying course of lectures," instead of "a course of lectures on insanity for three months."

The PRESIDENT said in that case they would have to define the word "qualifying."

Dr. PERCY SMITH said that three months was none too much for men who were going in for examination.

Dr. YELLOWLEES thought the mere period stood for nothing. The number of lectures attended was the point. They in Scotland were bound by what was required by the medical bodies who licensed the students.

Dr. WHITCOMBE said Scotland enjoyed privileges which England did not possess in this matter. Coming to the next question, "They must be registered under the Medical Act before the certificate is bestowed," Scotland enjoyed the privilege of allowing its medical students to pass the examination and receive the certificate at some date much later than their actually becoming qualified. He believed that was so; that medical students were allowed to pass the examination and the certificate was held until they were qualified. They, therefore, held peculiar advantages which were not possessed in England.

Dr. PERCY SMITH said under the curriculum for medical students in England it would be compulsory on every man to have attended three months. He did not think they should make it less than that.

Dr. DEAS moved that the rule be altered to read "of having attended a course of not less than forty lectures on insanity."

Dr. YELLOWLEES said the unanimous recommendation of the Education Committee was that eighteen to twenty lectures were as much as were necessary. He thought that whatever satisfied the Examining Board ought to satisfy the Association. If they could not demand a course of more than twenty lectures, what was the necessity of spinning that over three months when it might be done in two months or two months and a half.

The rule was referred back to the committee.

Clauses 3, 4, 5, 6, 7, 8, and 9 were agreed to.

Sections 2 and 3, "The prize dissertation" and "The Gaskell prize," were agreed to.

SECTION 4 (PROFICIENCY IN NURSING AND ATTENDING ON THE INSANE).

Dr. NEWINGTON said that within three or four days a very curious circumstance had occurred, which demanded treatment at the hands of the Association. A nurse at Manchester had brought a body of governors before the High Court of Justice under the following circumstances:—She had been a nurse at the Manchester Royal Hospital, where the regulations were that any person trained for three years in the infirmary should be allowed to submit themselves for examination, and if they passed should receive the certificate of efficiency. Having served three years, this young woman was requested before she went up for examination to go to a small cottage hospital where there had been small-pox cases. After four of five days she got dissatisfied and left, saying it was not a proper place for small-pox cases, and she was dismissed thereupon by the superintendent. She claimed to go up for examination, but the Governors declined to allow her to do so on the grounds that she had deserted her service. She said that she had been there for the three years, and if she could pass the examination she was entitled to the certificate. The Court decided against the Governors, that, notwithstanding her disobedience, having been trained for three years, she was entitled to submit herself for examination. It was possible that they might have cases to deal with of a similar kind, and they should fortify their position by adding to the regulations on page 19 some such clause as this, "The President may, if he thinks fit, order that the examination of a candidate be postponed, in which case he shall inform the Council at its next meeting of the fact and of his reasons for thus acting. That the Council shall consider the matter, and may order that the candidate shall be refused admittance at the ensuing or any examination." If the Association thought it would be wise to add something of that kind, he would undertake to submit a properly drawn addition to the rules.

Agreed to.

Dr. SPENCE asked if it was to be understood that Rule 8 on page 20 was to be cancelled.

The PRESIDENT—That is omitted.

The appendix to the regulations, Forms A, B, and C, were agreed to.

On the motion of Dr. WHITCOMBE, seconded by Dr. SPENCE, it was agreed that the meeting should be adjourned until 10 a.m. on the third Thursday in February at Oxford.

Dr. SPENCE suggested that when the rules were reprinted those already agreed to should be printed in one type and those amended by the instruction of the Association in another, so that it might be seen at once what rules had still to be considered.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

QUARTERLY MEETING, Nov. 16.

Dr. JAMES MURRAY LINDSAY in the chair.

The following candidates were elected:—

THOMAS SPROTT ALLAN, L.R.C.P.Edin., and L.M., L.R.C.S.Edin., etc., Medical Attendant "Redlands" Private Asylum, Tonbridge, Salford House, Tonbridge, Kent.

JOSEPH HERBERT BAYLEY, M.B., C.M.Edin., Assistant Medical Officer, St. Andrew's Hospital, Northampton.

ARTHUR DRURY, M.B., C.M.Edin., Medical Officer, Halifax Union, Landon House, Halifax.

JOHN GORDON GORDON-MUNN, M.B., C.M.Edin., Assistant Medical Officer, London County Asylum, Cane Hill, Purley, Surrey.

ROBERT HENRY WATSON, M.A., M.B., C.M.Edin., Assistant Medical Officer, Inverness District Asylum.

CHARLES EDWARD PATERSON, M.D.Edin., Arnold House, Farnborough, Hants.

LEWIS C. BRUCE, M.B.Edin., Assistant Medical Officer, Derby Borough Asylum, Rowditch, Derby.

Dr. CAMPBELL moved the following resolution, which stood over from the Annual Meeting:—"That the Medico-Psychological Association of Great Britain and Ireland are unanimously of opinion that the grant of 4s. a week at present given to Boards of Guardians to pay for pauper lunatics in County Asylums, Registered Hospitals, and Licensed Houses should also be given for pauper lunatics (*i.e.*, 'dements' and 'imbeciles') in Workhouse wards, or boarded out, if kept to the satisfaction of the Commissioners in Lunacy." This has been done in Scotland since 1874. "That this resolution be sent by the General Secretary to the President of the Local Government Board and to the Commissioners in Lunacy, asking them to assist in carrying the terms of the resolution into effect." He said he was very sorry that at Buxton some members seemed to think this resolution had been sprung upon them. It was not so, for it was brought forward with the leave of the Council. There was no wish on his part to spring the resolution. The fact was that the Committee of Visitors from the Cumberland and Westmorland Asylum were at the time agitating the question, and he thought the occasion opportune to bring the matter before the Association. Some of those present might be acquainted with the action of this 4s. grant. An Act was passed in 1874 giving 4s. a-week for each pauper lunatic in a public asylum. There was an extraordinary increase of admissions in 1875. Dr. Maudsley in a paper in the "Journal of Mental Science" for April, 1877, said: "The effect has been to empty the workhouses of all the cases which it was possible by any device to send to the asylum, and to remove the last vestige of desire which there might be to retain a pauper patient under any sort of care outside an asylum. The

Government has, in fact, said to parish officials, "We will pay you a premium of 4s. a head on every pauper whom you can by hook or by crook make out to be a lunatic and send into the asylum; and just as in olden times a reward of so much for each wolf's head led to the rapid extinction of wolves in England so we expect that this premium on lunacy will tend to diminish materially, and perhaps to render gradually extinct, the race of sane paupers in England." This was written in 1877. The total paupers in January, 1874, were 832,370, and in January, 1892, 761,692, a great diminution in sane paupers. The pauper lunatics in January, 1874, were 54,375, and in January, 1892, 78,838, a great increase in the pauper insane. When the Local Government Act, 1890, was passed a sum was given to each county to defray the former Imperial grants, among others this 4s. grant to pauper lunatics. As their share Cumberland got £48,000, and the amount paid to the Guardians under section 24 of the Act was £4,086. It was unnecessary to give figures, but in Durham, Northumberland, Cumberland, Westmorland, and Lancashire very extensive additional asylum accommodation had had to be provided, and at the present moment Durham and Lancashire were in sad straits for means of providing asylum accommodation for the patients requiring treatment. What he felt was that their asylums had been filled by aged cases who might quite as well be dealt with in the ordinary hospital wards of a workhouse. In the asylum of which he was in charge in the last thirty years the admission of patients above 70 years of age had increased threefold, and the death-rate over that age had more than doubled. He was quite sure if his resolution were carried out the number of aged patients sent to asylums would be diminished. The recovery rate at asylums would be increased and the death-rate lessened, and at the same time the patients would not suffer materially by being dealt with in the workhouses. He could also state that in every public asylum there were a certain number of cases that might be boarded out, as in Scotland. There was at present no inducement for the adoption of this system in England, but in Scotland, where they got the Government grant, there was some inducement to people to take up these cases. He believed they would be just as well dealt with in these ways as in asylums, seeing that nothing but food and ordinary nursing was required.

Dr. HACK TUKE, in seconding the resolution, said this was a point on which he had felt very strongly for some years. He had made it his business to visit as large a number of workhouses as possible in order to ascertain the condition of the insane, not only in the lunatic wards, but in the general rooms of the workhouse, and of course he found a very great difference. There were some workhouses in which the insane were not attended to in the way one would wish, but in the majority of instances, speaking of the chronic cases, the patients had every necessary comfort. He very much regretted the influence of the 4s. grant in shifting a number of patients from workhouses into an expensive county asylum. He was not strongly in favour of the boarding-out system, for in that there was more danger of abuse than in workhouses. Dr. Campbell had wisely guarded his resolution by the words "if kept to the satisfaction of the Commissioners in Lunacy." With that qualification, and subject to any needful verbal alteration, he had pleasure in seconding the resolution.

Dr. NEWINGTON said he did not want to speak so much on the principle as on the drafting of the resolution, otherwise, if the Association passed the resolution as it stood, it might be asked some embarrassing questions by recipients. To begin with, the 4s. grant was already deliberately given by the Act in respect of those patients who were "boarded out," using the words in the only sense in which they were used in the Lunacy Act. Under the 57th section of that Act cases were specially selected of patients who might be delivered over to the care of their friends, and it was provided that the 4s. a week should be paid.

Dr. CAMPBELL said those patients referred to were still retained on the books of the asylums.

Dr. NEWINGTON said the principle was this. It was decided to clear the

asylum by giving 4s. a week inducement towards suitable patients being boarded out, so as to make the tide set outwards from the asylum.

Dr. CAMPBELL explained that the patients so boarded out were still the patients of the asylum. What was proposed was to discharge the patient, and either send him to the workhouse, or else that the Guardians should board out that patient and still get the 4s. It was the Guardians who would get the 4s.

Dr. NEWINGTON said that might be all right. But the resolution used the words "boarded out," and these could only be used in the sense in which the Act used them, and in that sense the Act gave them 4s. a week. Without question the resolution must be altered. The Act also allowed the discharge of pauper lunatics to the care of friends on the permission of the medical superintendent, and also on the undertaking of the friends that they would not keep their patients on the rates. Then again, some pauper lunatics in workhouses were also paid for under section 26.

Dr. CAMPBELL—Those simply boarded by the workhouse in an asylum. That is under a special clause.

Dr. NEWINGTON—Still the words were in the resolution. The Local Government Board might say, "You have two distinct ways in which you can relieve your asylum of its demented. What have you done?" As a matter of fact, under section 26, Rochdale was the only workhouse receiving pauper lunatics, viz., from Prestwich, and Mr. Ley was very much against the resolution as it stands. Then the words "demented and imbeciles" were objectionable. Why should the Association attempt to define pauper lunatics? Parliament itself did not know what a "lunatic" was. In 1886 it passed an Act (Idiots) which said "the word 'lunatic' shall not include idiots or imbeciles." In 1890 it passed an Act which said "lunatics" should include "idiots." He did not think the Association need tamper with the words at all. By the Lunacy Act the selection of patients for being boarded out or returned to workhouses was not made on those terms, but was left entirely to the judgment of the medical superintendents. Without wishing to be at all hypercritical on other points, he thought the resolution would stand better in this form:—"That the Medico-Psychological Association of Great Britain and Ireland is of opinion that the grant of 4s. per week at present made to the authorities liable for the maintenance of pauper lunatics in county and borough asylums, registered hospitals, and licensed houses should also be made to such authorities towards the maintenance of pauper lunatics," etc., etc. He did not speak as to the principle of the resolution, but as to its drafting, and he hoped Dr. Campbell would see his way to accept his suggestion.

Dr. SPENCE could quite appreciate Dr. Campbell's wish to lighten the burden of counties providing large asylums. At the same time he thought the resolution, if carried as he proposed, was a retrograde step in the treatment of the insane. No doubt some workhouse authorities were doing their work admirably, but others were not. There were workhouses of the most miserable and wretched description, and these were the very institutions which, if the grant in aid now proposed were made, would retain their insane poor, instead of sending them to the county asylum, where there was every appliance for the treatment of acute cases. If Dr. Campbell proposed that a sum of 4s. per week be paid for every pauper lunatic in a workhouse who, having had the opportunity of being treated in the county asylum or other institution of the sort, had been transferred to the workhouse as incurable by the superintendent and the committee, that would help to get rid of a good many chronic cases, and would also guard the unfortunate patient against having lost his only chance of treatment in a well-managed county asylum. He opposed the resolution as it stood.

Dr. HENRY WINSLOW opposed the resolution. His own observation was that the authorities in the workhouses did not understand the management of insane persons. Patients suffering from acute mania, or any mental disease which required careful and judicious supervision, would very likely fall under extremely bad treatment, and might receive a great deal of injury. He should

therefore be sorry on that account to see the resolution passed. Another reason was that it was hardly fair to the patients themselves to pauperize them in this way on account of some mental misfortune.

Dr. WHITCOMBE said his recollection was that the 4s. grant was given really to prevent the detention of insane people in workhouses. His experience was that previous to this grant acute cases were kept in the workhouses because they could be kept there cheaper than in an asylum. If they took this retrograde step proposed the thing would occur again, whereas at the present time they held in their hands the power of discharging patients to workhouses and of boarding out patients, giving a grant equal to the amount charged in an asylum. They therefore practically had the power of placing boarded out patients in a better condition than they could be if boarded out by the workhouses. He thought altogether if the resolution were passed it would tend to accumulate the insane in workhouses, and he quite agreed that there were very few workhouses which were capable of treating insane people properly.

Dr. CHAPMAN was in favour of abolishing the 4s. altogether, but if they were to do anything that would probably meet with any sort of consent from the financial authorities, probably the better way would be to make the grant something like it was at present, and to equalize it for all patients on the pauper list. In order to secure unanimity he was quite willing to support Dr. Campbell's resolution.

Dr. SHUTTLEWORTH, while supporting the principle of the resolution, thought there were matters which showed that certain modifications were required. He was glad to find that the one Board of Guardians with which he was acquainted in Lancaster had refused to pass a resolution which had been submitted to them very much in this form, but had modified it by stating that they would be glad to have the 4s. grant in cases which had had the privilege of asylum treatment for a period of at least one year. The matter about which he wished to speak was the class of juvenile imbeciles, which, he took it, was included in the comprehensive term of "pauper lunatics." The last Lunacy Act said that "lunatics" still included "imbeciles," and it should be clearly understood that this grant of 4s. a week should not be given to Boards of Guardians who did nothing whatever for the training of juvenile imbeciles. He had continually to visit large workhouses in Lancashire and Yorkshire, and in many cases nothing whatever was done to the children except to keep them clean. There was no attempt at industrial instruction or at improving them mentally. In other cases they were very anxious to send the juvenile imbeciles to such institutions as existed for training and education. At present, of course, the accommodation was greatly limited, but there were certain Boards of Guardians who, he was quite certain, would not move a finger to send an imbecile capable of education to an institution if they had not the help of the 4s. a week towards the cost of maintenance. Therefore, some modification in favour of juvenile imbeciles should be obtained. Of course, there was the safeguard of the certificate of their being kept to the satisfaction of the Commissioners in Lunacy, but he doubted whether the Commissioners would enforce any such universal rule.

Dr. THOMSON said, as far as he could see, Dr. Campbell wanted to get rid of his senile cases. He (Dr. Thomson) looked upon his senile cases as those requiring the most careful and special attention. They concentrated in themselves all forms of mental disease; a man one day had acute mania, the next day he was paralytic, and the next day melancholic. Such cases required the most skilled knowledge and treatment. He was very glad to be able to say a word in favour of the justly decried Lunacy Act, namely, that it had placed in the hands of superintendents the power to decide which cases were suitable for workhouses and which for asylums, and not, as Dr. Campbell would have it, in the hands of the Guardians. He, therefore, opposed the resolution.

Dr. BENHAM said, unfortunately, in one of the unions in connection with his asylum, the female wards were full, and when a new case came in they looked through the imbecile patients in the lunatic ward of the workhouse, picked out

the one most likely to be certified by the magistrates, and forthwith passed it on to him. The result was that he had chronic senile cases sent in who were a dead weight on the body of the asylum. With regard to what the last speaker had said about cases which should be received and detained in an asylum, he would point out that the asylum was more extensively fitted than the workhouse for the purpose of aiding the curability of patients, and the dead weight of senile dementa sent in in his case reacted unfavourably on the whole of the asylum and on the curability of the other inmates. The proper remedy had, he thought, been suggested by Dr. Spence, namely, that any case sent to the workhouse under the certificate of a medical officer should be entitled to the 4s. which was received by those sent into the asylum.

Dr. STEWART—While sympathizing in the main with the resolution moved by Dr. Campbell, I do not altogether share the generally accepted view as to the effects of the capitation grant upon the relative distribution of the insane in England and Scotland. The gradual increase of pauper lunatics in asylums and the corresponding diminution in private dwellings and workhouses, was noticeable long before 1874, and this movement continued practically unchecked in Scotland until six years after that in which the grant was made available in the case of patients boarded out in private dwellings. In 1858 the percentage boarded out in Scotland was 37·6; in 1874 it had fallen to 22·1, and in 1880 to 18·1, but since then it has gradually risen, and is now about 23. In my opinion this change, which took place in Scotland in 1880, is to be attributed, not to the fact that the grant was available, but to the insistence with which the Scotch Commissioners pressed upon local authorities the necessity of removing from asylums those who had so far recovered as to be manageable in private dwellings. In the Lunacy Act of 1890 provision is made for the removal from asylums to workhouses and to the care of relatives or friends of unrecovered patients without forfeiture of the grant, but, so far as statistics show, local authorities have not as yet availed themselves of this means of relieving their overcrowded asylums. That there are difficulties connected with the carrying out of this system under the existing law is undeniable, and not the least of these is the recertification required to prevent the expiration of the reception order. As these patients so disposed of outside asylums are still to continue on the asylum books, and to be regarded as patients in the asylum, the continuation statements and certificates must necessarily be forwarded at stated intervals. This, under the present statute, has to be done by the medical superintendent of the asylum, and it can hardly be regarded as part of his duties that he should have to visit these patients, who may be resident at considerable distances from the asylum. This appears to have been strangely overlooked in the framing of the Act.

Dr. SPENCE proposed, as an amendment, "That the Medico-Psychological Association of Great Britain and Ireland is of opinion that the grant of 4s. per week at present made to the authorities liable for the maintenance of pauper lunatics in county and borough asylums, registered hospitals, and licensed houses should also be made to such authorities towards the maintenance of pauper lunatics placed in workhouses under the provisions of the 25th Section of the Lunacy Act (1890)."

Dr. YELLOWLEES said that was quite on the lines of what was done in Scotland. The patients who were received in the workhouse were those who had gone through the asylum, and were certified by the medical officers of the asylum as probably incurable, and as no longer requiring care and treatment in the asylum or likely to be benefited by it. Not till that was certified did the Commissioners sanction the discharge of that patient, and the discharge was sanctioned not to the workhouse generally, but to the lunatic wards of the workhouse, which lunatic wards were regularly visited and licensed by the Commissioners for a certain definite number of patients. If the patient was sent not to the lunatic wards of the workhouse, but to a private dwelling, that dwelling also was licensed and visited by the Commissioners, and only under

those circumstances was the 4s. grant allowed. His opinion was that only in the case of patients who had passed through the asylum and needed nothing more than kindly care and nursing should such extension of grant be given. Certainly it should only be extended under the definite limitation that the patient was certified by the superintendent as a suitable case, and that the place to which he went was recognized and licensed by the Commissioners of Lunacy.

Dr. COOKE seconded the amendment, which he thought afforded a true solution of the difficulty.

Dr. WHITE also thought Dr. Spence's amendment met the case. He had had a good deal of experience of cases transferred from the asylum to the workhouse. The patients ought certainly first to go through the asylum and be subjected to what treatment they could offer. If that failed to be of any effect, the right plan was to go back to the workhouse and be there under the form of certificate as carried out by the Act, which, as far as his experience went, had worked very well.

Dr. CAMPBELL said he quite saw what Dr. Newington had referred to, and thought the term "chronic lunatic" would meet his views.

Dr. NEWINGTON said his view was that the Act already stated what was necessary on the point. The choice was left to the medical superintendent. As far as the Act went, it might be a general paralytic, it might be an idiot, or anybody that came under the head of "pauper lunatic."

Dr. CAMPBELL asked whether the term "pauper lunatic suitable for workhouse treatment" would meet the view?

Dr. NEWINGTON said it would not.

Dr. CAMPBELL said he should suggest "all pauper lunatics." What did Dr. Newington suggest?

Dr. NEWINGTON—That "the grant of 4s. per week, at present made to the authorities liable for the maintenance of pauper lunatics in county and borough asylums, registered hospitals, and licensed houses, should also be made to such authorities towards the maintenance of pauper lunatics," etc.

Dr. CAMPBELL—Will you go on and then state "in workhouses or boarded out?"

Dr. NEWINGTON—No; I am against the principle of it altogether.

Dr. CAMPBELL—Will you put them in the workhouse then?

Dr. NEWINGTON—Only those sent there under Section 25.

Dr. CAMPBELL said he now understood how far Dr. Newington would go. He thought it a little unfair to hold that only the cases sent out under certificates should get the grant, seeing what had been the practice for the last five or six years. If, however, the idea was only to deal with the future, he should be quite willing to withdraw the motion and to accept the amendment.

Dr. HACK TUKE took the same view. They had all one object, viz., to prevent chronic cases being sent to asylums; of course it was admitted that acute cases should be sent there.

Dr. CAMPBELL said they did not want to have acute cases sent to the workhouse; they wanted cases suitable for workhouse treatment.

The PRESIDENT said no doubt some relief to asylums was absolutely necessary. Lately his asylum had been overcrowded, and on inquiry being made it was found that only one workhouse out of 66 was in a position to take any chronic cases. Another county asylum was making a similar inquiry, as to how many could be taken and on what terms. That showed that more room was wanted. In his own county all the Unions were considering this question, and they had all decided to memorialize the Local Government Board in favour of the grant. He mentioned that as the experience of one county, showing the advisability of making room, if room could be made, for more urgent cases by the removal of the less urgent cases.

The amendment was then put and carried by a large majority.

On its being put as a substantive motion,

Dr. YELLOWEES asked if there was any kind of security that the 4s. was given to the right person, or that the patients boarded out or handed over to relatives were properly cared for. There seemed to be some want of machinery for working it. In Scotland the patients were regularly visited and the houses licensed, and so the sum of money spent through the Guardians was properly spent. Without some such check he did not know how they could at all secure that the patient should get the benefit of the money. He moved the addition of the words, "And for patients similarly discharged from asylums to the care of relatives and others."

The amendment was not seconded.

The substantive motion was then agreed to.

Dr. CAMPBELL moved: "That a copy of this resolution be sent by the General Secretary to the President of the Local Government Board and to the Commissioners in Lunacy, asking them to assist in carrying the terms of the resolution into effect."

Dr. CHAPMAN seconded the resolution, which was agreed to.

Obituary.

WILLIAM RHYS WILLIAMS, M.D.,

Late Commissioner in Lunacy and former Superintendent, Bethlem Royal Hospital.

We regret that it is our duty to have to record the premature death of our former member and friend Dr. Rhys Williams, which occurred in the first week of December, 1893. Dr. Williams was 56 when he died, and he had had, as we shall point out later, an unusually wide experience of lunacy in all its relations. He came of a family of doctors; his father was a much respected physician, who was in practice at Nottingham, where he was visiting physician to the asylum.

Williams was sent to Merchant Taylor's school, where he took a high position, winning a classical scholarship on leaving the school, which gained him entrance to St. Thomas' Hospital. This was most opportune, for his father had then been recently killed by a carriage accident. At the hospital he was a very quiet, steady, painstaking student, who impressed his teachers very favourably. He qualified as quickly as possible, as it was necessary for him at once to earn money. For about 18 months he acted as assistant to a general practitioner at Daventry. Here he got his practical knowledge of the smaller ailments and their remedies, which he always used to say stood him in such good stead in after life. Here, too, he exhibited his power for winning the affection of his patients. After this he began his real work in lunacy by becoming assistant medical officer at the Derby County Asylum. Thence he went to assist Dr. Willett, at Wyke House, and it seemed as if Williams had settled into a groove for which he was eminently well suited; the country life, the hunting, and the genial social surroundings suited him well, but he threw up this to join once more the public service, and he was selected assistant medical officer to the Three Counties Asylum, under the late Dr. Denne. This part of his life he was very fond of recalling with pleasure as the one during which he learnt the administrative part of his work. Williams got to know the new Treasurer (Sir C. Hood) of Bethlem through his connection with Dr. Willett, and this, in addition to other valuable introductions, led to his selection as assistant physician to Bethlem.

Soon after his appointment his senior, Dr. Helpa, broke down in health and was ordered abroad, and thus for over a year Williams had almost the entire

work of the hospital on his shoulders. For weeks together he never passed the gates, and he did his work in such a satisfactory way that on the death of his senior he was selected as Superintendent over the heads of many senior men. We are inclined to think this was rather a misfortune for Williams, and that the too early attainment of the end removed the incentive to work. He was always devotedly attached to and proud of the hospital, and to all belonging to it. There were two very important steps taken soon after his appointment, the one being the institution of clinical assistants, and the other being the opening of the Convalescent Home at Witley; both these steps have been followed by other institutions. While at Bethlem the most conspicuous point about him was the personal affection he won from the patients under his care and from their friends. His free and genial manner made him almost too great a favourite for his comfort or for his real good.

The late Lord Shaftesbury was among those who were very favourably struck by him, and the result was the offer of a Commissionership. This he accepted, and began his work at once in 1878, and for ten years he held the post, retiring in 1889. His friends having for some time noticed signs of failing health were not surprised at his resignation. As Commissioner he was kindly and considerate to all, and nothing gave him greater pleasure than being recognized by old Bethlem patients who had formerly been under his care. On his resignation he went to Leamington, where he placidly and happily lived with his sister, who devoted herself to his care.

Early in December he was attacked with bronchitis, which terminated fatally in a few days, and thus ended the life of one who, with more than average ability and with an unusual capacity of attracting friends, might have left a bigger mark on his time and in his profession if he had not reached his goal too soon.

ISAAC N. KERLIN, M.D.

The death, on October 25th, of Dr. Kerlin, so well known, both in Europe and America, as the earnest and successful Superintendent of the Pennsylvania Institution for Feeble-Minded Children, removes from the scene of his labours one of the most energetic benefactors of the imbecile class.

Dr. Kerlin was born in New Jersey nearly sixty years ago. Early in his medical career he became interested in nervous diseases, and naturally drifted into the special line of study which led him to assume the position he so long held. After some years' service as Assistant Superintendent under Dr. Joseph Parrish, he succeeded that physician as Superintendent of the Pennsylvania Institution (then at Germanstown) in 1864. Year by year, under his judicious guidance, the institution grew and prospered; and from two small buildings, with less than 100 pupils, gradually developed the large establishment that now exists at Elwyn, which indeed may be designated a model village for the various classes of imbeciles, numbering in all upwards of 1,000. Here may be seen, picturesquely placed on wooded eminences, the several departments into which a large establishment for imbeciles groups itself, the central training school being the most prominent, and, subsidiary to this, at discreet distances, are found a hospital, a department for epileptics, and separate blocks for custodial cases of either sex. These several buildings are connected by means of a mule-car tramway, shares in which Dr. Kerlin used to suggest as a good investment to the benevolent! One of the special features of the beautiful grounds is the "Grove Tabernacle," where on summer evenings from 600 to 700 of the asylum family gather for Sabbath worship under the spreading forest trees. But the heart and soul of the organization was the good doctor himself. Living in

the midst of the training-school building, he was ever devising some extension of the usefulness of the institution, and when at last he found that the limit of acquisition of suitable land at Elwyn had been reached, he busied himself in obtaining legislative sanction for the inauguration beyond the Alleghenies of a Western Pennsylvania Institution, where land could be had for 100 dollars per acre. The piloting of this Bill through the State Legislature was, indeed, almost his last public enterprise.

Notwithstanding his devotion to his own special work, he found time to take an active part in many philanthropic associations, and he was a prominent figure at the annual "Conferences of Charities and Correction." To these he contributed numerous excellent papers on such subjects as State provision for the mentally-feeble, for epileptics, and for moral imbeciles, a class concerning whom he was of late much exercised.

Though Dr. Kerlin has not personally written much of a strictly medical character, he was always ready to promote the scientific utilization of the mass of pathological material under his charge, and this has been recognized by Dr. Osler, of Baltimore, in his work on the "Cerebral Palsies of Children," the cases in which are largely derived from the institution at Elwyn. Dr. Kerlin's assistant, Dr. Wilmarth, has also published valuable contributions to the pathology of idiocy.

Since the deaths of Dr. Wilbur and Dr. Brown, of Barre, Dr. Kerlin has been the Nestor of the Medical Officers of American Institutions for the Feeble-Minded. Very worthily did he fill the Presidential chair of the Association of such officers at their annual meeting in 1892. His address on that occasion is full of scientific information on new methods of treating idiocy (especially by surgical procedures), and of practical wisdom as regards institution organization. He insisted, with all the weight of his long experience, on the essentially medical character of all successful institutions for feeble-minded children. "I am unwilling to admit," he says, "that our work is any other than a medical philanthropy—a hospital was its birthplace and its cradle. . . . It is our supineness, our lack of courage and faith, which shall yield this trust to other than medical men. . . . Every department of duty, whether official, domestic, farming, or labouring, should be made tributary to the elevation and instruction of the inmates; it is the pessimist—indeed, worse, the superficial and vapid reformer—that would venture to modify the directness and application of these principles. To rob the Superintendent of the garden and farm life of his boys is the same as to deprive the surgeon of his best instruments; to limit him to the avocation and direction of the schoolroom is to wither his right arm; to confine him to medical practice is to forget his broader relations to his patients in all their varying psychical moods and higher moral life; to restrict or abridge in the slightest his free movements of men, women, and material, is to ignore the many-sided aspects of his professional duty. Of course there must be faults and failures in any system, but 'any fool can find the faults; it is the wise man who can find the remedy.'"

As an example of Dr. Kerlin's skill and foresight in the details of institution management, it may be mentioned that in 1891 he published in book-form, under the title of "Manual of Elwyn," a collection of general rules and house orders which in many cases had been in force during the 27 years of his superintendentship. Yet he was no mere disciplinarian; his heart was full of love and sympathy for all who aided, however humbly, in the work of the Institution. In 1889 he showed signs of failing health, and his Board sent him for a six months' trip to Europe, from which, however, perhaps owing to excess of zeal in visiting institutions, he did not derive as much benefit as had been hoped. Notwithstanding his infirmities he did not flinch from his work, and although last year much depressed by the loss of his wife, who had been a true helpmate in all his enterprises, he gallantly struggled on to the last, and died in harness. Those who had the pleasure of making his acquaintance when visiting this

country will appreciate the cheery spirit in which, though conscious of grave organic disease, he brought his Presidential Address to a close with the words of Browning's "Rabbi Ben Ezra"—

"Grow old along with me;
The best is yet to be,
The last of life for which
The first was made.
Our times are in His hand
Who saith, 'A whole I planned.'
Youth shows but half; trust God,
See all, nor be afraid."

G. E. S.

DIETARY REPORT.

Copies of the Report of the Dietary Committee were sent to all the ordinary member (at the addresses given in the Journal for October, 1892) in July last. If any members has for any reason, not received his copy, it will be forwarded to him on application to Dr. Turnbull, Fife and Kinross District Asylum, Cupar.

NURSING CERTIFICATES.

A list of the persons who obtained the Certificate of Proficiency in Nursing at the Examinations held in November, 1893:—

MALES.

City of Birmingham Asylum, Winson Green.

Jones, Amy Adelaide.
Jones, Georgina.
Keen, Selina.
Truss, Alys.

FEMALES.

County Asylum, Gloucester.

Cordwell, Ebenezer.

Bethlem Hospital, London.

Cantle, Edward J.
Cantle, Alfred.

Harrington, Emma Catherine.
Lulham, Mary Ann.

County Asylum, Rainhill, Lancashire.

Bennett, John R.
Eggo, Alexander.
Gore, Arthur.
Hazelhurst, John.
Hitchen, James.
Morgan, Henry.
Morton, Thomas.
Ross, James.
Smith, Albert.
Spencer, William Henry.
Smallshaw, James.
Stanton, James Layton.
Turner, William Henry.

Angus, Elizabeth.
Brotherton, Annie.
Bailey, Mary Ellen.
Cheese, Mary.
Day, Henrietta.
Dovey, Blanche Isabel.
Eastmond, Harriett L.
Freebury, Mary Ann.
Robinson, Caroline E. A.
Randel, May.
Watkinson, Evelyn.

Derby County Asylum, Mickleover.

Bird, Harry.	Fletcher, Mary Ellen.
Cooper, Thomas.	Hall, Elizabeth.
Hutchinson, Henry.	Newport, Annie.
Plumber, James.	Savidge, Ada Elizabeth.
Speck, Jesse.	Withers, Mary.
Twigg, George Henry.	
Travis, Thomas.	

Holloway Sanatorium, Virginia Water.

Bryant, Robert.	Plowright, Clara.
Burgoyne, John Webb.	Plowright, Kate.
McGann, Thomas.	
Hunt, Thomas Summers.	
Lancy, Henry.	
Payne, Arthur Hookham.	
Stamp, James Glanville.	

Brook House, Upper Clapton, London, N.E.

Dodkins, James.	Barkwith, Elizabeth.
Eveleigh, John.	Hobbs, Catherine Anne.
Jennings, Thomas George.	Jones, Annie Mary.
Weatherley, Thomas.	Standfast, Alice.
	Sissette, Amy.
	Sweet, Martha Hooper.
	Smith, Jane Annie.
	Thacker, Agnes.

Redlands, Tonbridge.

Harmer, Mary Dorothea.

Royal Asylum, Dundee.

Galbraith, Alexander.
Soutar, Alexander.

By direction of the Council the name of Frederick Swadling was removed from the Register.

QUESTIONS.

1. What is the ordinary temperature of the body in health? Is elevation of temperature frequent amongst the insane? How would you proceed to ascertain exactly whether there was any rise of temperature in a given case?
2. A patient has had a fall; what symptoms or conditions would lead you to suppose that one or more ribs had been broken?
3. An epileptic patient has received a deeply incised wound of the scalp, which is bleeding freely; describe the steps you would take to arrest the bleeding and temporarily dress the wound.
4. What steps would you take to prevent the occurrence of bed sores in an enfeebled patient confined to bed? State the parts of the body to which you would pay special attention.
5. What indications in a patient's condition would lead you to suppose that insufficient nutriment was being taken, and that special attention to alimentation was necessary?
6. Describe generally the mental and bodily states of a patient suffering from Acute Melancholia, and how would you act towards such a case if you were placed in special charge?

ner,¹¹ Bevan Lewis,¹² Colella,¹³ and Ruxton and Goodall,¹⁴ all of whom have directed attention to the structural changes in the peripheral nerves. Now all these later writers are more or less in unison in regard to their description of the alterations which occur in the mixed spinal nerves, but Colella, in an excellent Italian monograph, appears to be the only one who has at all fully described the condition found in the cranial nerves in connection with their nuclei of origin. The purely sensory and purely motor terminal branches of the mixed trunks have not received sufficient attention, nor have the changes in the muscles been accurately described.

I, having been provided with ample opportunities and exceptional advantages for the study of these conditions in an asylum in which this particular form of insanity is comparatively common,* am desirous of putting on record the results of an investigation which I have made into the condition of these parts in the case of twelve patients who succumbed to this disease.

Parts examined.—*Cranial nerves.*—Olfactory, optic (within the cranium and including the chiasma), oculo-motor, trochlear, trigeminal, facial, pneumogastric (both at origin and within chest), hypoglossal. (The oculo-motor, trigeminal, facial, and hypoglossal nerves were examined both at their origin and peripherally.)

Those nuclei of origin situated in the mesencephalon, pons Varolii, and medulla oblongata.

The spinal cord with nerve roots and some of the dorsal and lumbar posterior root ganglia.

Mixed spinal nerves.—Median, musculo-spiral, ulnar, radial, phrenic, some intercostals, sciatic, anterior crural, peroneal, anterior tibial.

Motor twigs to the biceps (brachii) muscle, supinator longus muscle, peroneus longus muscle, tibialis anticus muscle.

Sensory branches of the external cutaneous nerve (upper extremity), internal cutaneous nerve (upper extremity), middle cutaneous nerve (lower extremity), superficial plantar nerve (lower extremity).

¹¹ "Zur Path. und Path. Anatom. der prog. Paral. insbesondere über die Veränderungen des Rückenmarkes und der peripheren Nerven." "Arch. f. Psych.," Berlin, 1892, xxiv.

¹² "West Riding Asylum Reports," Vol. v., 1875.

¹³ "Annali di Neurologia," 1891, pp. 115-200.

¹⁴ "Brain," 1892, p. 241.

* The entire material, both clinical and pathological, for my observations has been afforded by the County Asylum, Rainhill.

Muscles.—Biceps brachii, supinator longus, biceps femoris, abductor longus, peroneus longus, anterior tibial, diaphragm and heart.

Methods of examination employed.—The small sensory and muscular nerve twigs were stained with osmic acid, some according to the method of Exner,¹⁵ others by Marchi's¹⁶ method, the mixed nerve trunks, the spinal ganglia and spinal cord also according to the method of Marchi, and afterwards with Weigert's hæmatoxylin method, and in some cases the modification of that method by Pal, of Vienna, to bring out the medullary nerve sheath. Also with ordinary hæmatoxylin to demonstrate nuclear structures, and with picrocarmine or China blue to reveal connective tissue and axis cylinders.

The pons, medulla, and mesencephalon, after primarily being hardened in Müller's fluid, and afterwards in alcohol of gradually increasing strength, were cut in celloidin and stained by Weigert's hæmatoxylin method, with ordinary hæmatoxylin and with picrocarmine or aniline blue black. The muscles were hardened and imbedded in the same material, and stained with picrocarmine, hæmatoxylin, and eosine, methyl blue and osmic acid.

Cases.

CASE I.—*Clinical history.*—Female, æt. 36, married. Admitted January 27th, 1890. The present attack is said to have commenced two years ago without traceable cause. She is of temperate habits. Has a phthisical family history.

On admission the pupils were equal, but did not react to light or accommodation. The reflexes were exaggerated; the tongue and lips tremulous, the labial tremors being most marked when speaking and immediately prior to speaking. Pulse 76. Her memory was good, but she was highly delusional.

The case ran a usual course. She became progressively demented, emotional, noisy, and dirty. Her speech and deglutition became affected; her reflexes more exaggerated; she lost weight, wasted, developed bedsores, and died on October 27th, 1892, from congestion of the lungs, having had several seizures prior to death.

Autopsy.—In addition to bedsores there were several red purpuric spots due to capillary hæmorrhages on the skin of the ankles, legs, thighs, and iliac bones. The legs and arms were wasted, but the atrophy was not confined to any particular group of muscles.

¹⁵ "Von Kahlden. Technik der histologischen Untersuchung pathologisch-anatomischer Präparate." Jena, 1892, p. 97.

¹⁶ "Von Kahlden," p. 90.

The subdural fluid was distinctly excessive in amount; there was a thin subdural hæmorrhagic membrane in the left superior parietal region. Arachnoid opacity very marked at the vertex. Cortical adhesions of pia with decortication in all parts of the brain, excepting the tip of the frontal and the occipital gyri. Well-marked general atrophy; weight of encephalon 1,187 grms. Cortex shallow, dark in colour, firm in consistence, indistinctly striated. Lateral ventricles dilated. Ependyma in descending horn of lateral ventricle, in the fifth ventricle, and in the fourth ventricle highly granular. In the spinal cord the only naked eye change detectable was a thickening of the inner meninges in the cervical region. The ribs were brittle, the lungs extensively tubercular. The liver and kidneys showed early fatty degeneration, and the small intestine tubercular ulcers.

Pathologico-anatomical diagnosis.—Dementia paralytica; leptomeningitis chronica; atrophica cerebri; hypertrophica ependymæ ventriculorum; tuberculosis pulmonum et intestini; degen. adiposa hepatis et renum (grad. levioris); decubitus et marasmus.

Microscopical examination.—Sections from the second frontal, ascending parietal, superior parietal, first temporal and hippocampal convolutions, examined by the fresh method (Bevan Lewis), showed a few corpora amylacea on the surface, marked thickening of the subpial glia forming a thick-felted network. Marked hyper-pigmentation, atrophy, distortion, and increase of pericellular nuclei round numerous cells. Many Deiter's cells, most abundant at the surface of the cortex and in the superficial part of the white matter and along the vessels.

Nerves and muscles.—*Vagi.*—Many fibres seen with a swollen medullated sheath and axis cylinder in a state of fatty degeneration; a disappearance of a great number of healthy fibres, their place being taken by fibrous, nucleated material. The degeneration is evenly distributed throughout the various bundles. The nervi nervorum are diseased, and some arterioles have markedly thickened intimæ. Collections of minute nerve tubules seen throughout.

Mediani very extensively diseased, about 65 per cent. of the healthy fibres having disappeared. Some vessels show a thickened middle coat.

Peroneus (right).—Some bundles contain almost no healthy fibres. One bundle seen which is almost untouched; extensive vascular alterations. In this nerve, as in all the other nerves, numerous minute nerve-tubules can be seen lying in the spaces from which the healthy nerve-fibres have disappeared. They are unstained by Weigert's hæmatoxylin.

Motor branches to the biceps brachii, flexor carpi longus, adductor magnus, and anterior tibial muscles, and *sensory branches* of the external cutaneous nerve of the upper extremity, and of the middle and internal cutaneous nerves of the lower extremity show

marked changes; many nerves are seen swollen and in a condition of acute parenchymatous degeneration, others in a more advanced stage. Some nerves are represented only by the nucleated outer sheath of Schwann, the contents having disappeared; and, again, many minute nerve fibres with delicate medullated sheath are seen (*vide* drawings IV. and VI.).

Muscles.—*Biceps brachii* (*right*).—Some fibres seen in a state of granular fatty degeneration and much swollen, others atrophied and showing a great increase of sarcolemma nuclei. The vessels of small calibre distinctly diseased.

Peroneus longus (*left*).—Similar changes.

Spinal cord.—A certain excess of connective tissue in the pyramidal tracts (direct and crossed), and in the posterior columns of Goll and Burdach. Disseminated degenerated fibres in all parts of the cord most marked in the above-mentioned regions.

The anterior and posterior roots distinctly diseased; this change most marked in the cervical and lower dorsal segments. The central canal obliterated throughout.

CASE II.—*Clinical report.*—Female, æt. 26; admitted July 14th, 1891. The present attack has lasted for a year, and she has had three previous attacks of acute mania. She has been intemperate.

On admission the pupils and reflexes were normal. The pulse 80. She was excitable, noisy, violent, emotional, deluded, dirty, and destructive. Three months later she was in the second stage of general paralysis; had unequal pupils and marked tremors, and was losing expression. A year later she was so paralyzed that she could hardly walk alone; she had to be fed, and was very demented. She died of erysipelas and lobular pneumonia on November 2nd, 1892.

Autopsy.—Legs below knees and forearms wasted, the wasting not being confined to any particular groups of muscles.

Calvarium thick, subdural and subarachnoid fluid much increased in amount; membranes (internal and external) thickened. Encephalon weighed 1,170 grammes. Marked wasting of convolutions, especially of the frontal lobes. Cortex dark, shallow, firm, and poorly striated. White matter firm. Ependyma of lateral ventricles in region of optic thalami thickened; that of the fourth ventricle very rough and thickened. The olfactory lobes enlarged and translucent. Lungs present scattered patches of lobular pneumonia. Pathologico-anatomical diagnosis:—Dementia paralytica, lepto-meningitis chronica, atrophica cerebri, pneumonia lobularis bilat., and cystitis et vaginitis chronica.

Microscopical examination.—Sections from various parts of the brain cut fresh and stained after the method of Bevan Lewis exhibit the usual characteristic changes.

Spinal cord.—Beyond a slight excess of connective tissue in the motor tracts and posterior columns, and an obliteration of the

central canal from ependymal overgrowth, nothing remarkable is to be observed.

The nerve roots are very slightly affected.

Mixed nerves.—*Pneumogastric.*—Very extensive parenchymatous degeneration, with resulting fibro-cellular transformation, leaving few healthy fibres. Sections prepared with a nuclear stain show an enormous increase in the number of the nuclei of the sheath of Schwann; while those stained with Weigert's hæmatoxylin bring out the paucity of healthy fibres in a most striking manner. Many peri- and endo-neural vessels have a thickened intima and media.

Median (right).—In a condition of early parenchymatous degeneration, only a few fibres have disappeared; some are much swollen and fatty, others devoid of axis cylinders. The vessels are not noticeably affected, and the nuclear proliferation is slight.

Ulnar (right).—Considerably more diseased than the median, but still not extensively affected.

Sciatic (left).—Affected to about the same extent as the ulnar; the nervi nervorum especially diseased, and some bundles more than others.

Posterior tibial (left); peroneal (left).—Both considerably more diseased than the sciatic.

Motor branches.—Twigs to the biceps brachii, flexor carpi ulnaris, gastrocnemius and peroneus muscles examined by tearing after immersion for 24 hours in a one per cent. solution of osmic acid exhibit marked parenchymatous changes; all the various stages of disintegration and fatty degeneration of the medullary sheath, swelling and breaking up of the axis cylinder, and swelling and proliferation of the nerve nuclei seen. Numerous empty sheaths seen and much fibro-cellular tissue representing the remains of destroyed fibres.

Sensory branches.—Cutaneous twigs from the external cutaneous nerves of the leg and arm of the superficial cervical and intercostal nerves, prepared in the same manner, show similar changes.

Muscles.—*Heart (left ventricle).*—Many atrophied fibres seen, and others which are hypergranular and over-pigmented. The nerves running in the epicardium and the small blood vessels throughout are extensively diseased.

Biceps brachii (right).—A striking excess of the nuclei of the sarcolemma; many fibres atrophied, others in a state of hyaline degeneration. Some arterioles have enormously thickened intima, leading almost to obliteration. The motor nerves contain few healthy fibres.

Flexor carpi ulnaris (right), gastrocnemius (left), and peroneus (left) show similar changes.

CASE III.—*Clinical report.*—A sailor, aged 29; unmarried; admitted June 14th, 1892. Intemperate as regards both alcohol and sexual indulgence; his mother died of brain softening. Assigned cause of disease a head injury.

On admission he was in the second stage of general paralysis, markedly ataxic, and with exaggerated reflexes. On September 19th he had his first seizure, which was accompanied by twitchings of the left side of the face and left arm.

A series of seizures led to his death on November 3rd, 1892.

Autopsy.—No marked wasting of muscles was noticed. The brain presented all the macroscopic appearances characteristic of general paralysis; opaque swollen membranes, excess of subdural and subarachnoid fluid, cortical wasting, dilated ventricles, with granular ependyma, etc.

The lungs were much congested.

Microscopical examination.—Sections of the *cerebral cortex* cut and stained in the fresh state showed the characteristic changes and marked fatty degeneration of the nuclei of the vessel walls.

Spinal cord.—Examined fresh, and after hardening showed slight degeneration of the cells of the anterior cornua in the cervical region, scattered degenerated fibres in the anterior and crossed pyramidal tracts and the posterior root-zones. Degeneration of both anterior and posterior nerve roots. Obliteration of the central canal throughout.

Nerves.—*Optic nerves* unchanged.

Vagi extensively diseased.

Phenici.—Slight interstitial changes.

Median (left).—Not a great amount of degeneration; more in some bundles than in others.

Ulnar (left, at elbow).—More affected than the median.

Ulnar (left, at wrist).—Marked by more nervous and vascular degeneration than at the elbow.

Radial (right).—More extensively diseased.

Sciatic (right).—Not much affected.

Tibialis posterior (right and left).—Somewhat more diseased than the sciatic; that of the left side more affected than the right; vessel changes very marked.

Peroneal (right).—Very extensive disease. Some bundles much more involved than others.

The internal and external *cutaneous nerves* of the arms and legs and *muscular twigs* to the biceps, supinator longus, adductor magnus, and anterior tibial muscles all show marked parenchymatous degeneration, the sensory nerves being more diseased than the motor.

Intervertebral ganglia.—The 5th and 6th cervical and the 1st and 2nd lumbar show slight degeneration in the anterior roots, marked changes in that part of the posterior roots between the ganglia and the cord, with comparatively slight affection of the peripheral part, and hyper-pigmentation of the ganglion-cells.

Muscles.—The diaphragm, supinator longus, biceps cruris, gastrocnemius, and long peroneal muscles all show some degree of interstitial myositis, those situated most peripherally being most

affected. Some terminal nerve bundles show the condition described by Eichhorst, under the name "Neuritis Fascians."

CASE IV.—Male, æt. 39; admitted July 15th, 1891; died December 6th, 1892. Syphilis and drink are the assigned causes of the attack. Mentally he did not deviate from the ordinary type, and physically the only remarkable feature was that his gait was both spastic and ataxic.

Autopsy.—Extremities much wasted; the muscles of the inner side of the thigh, of the outer surface of the leg, and of the forearms and hands especially involved in the atrophy.

The microscopic encephalic changes were advanced and typical. The liver was syphilitic.

Microscopical examination.—*Cortex cerebri*.—Examined fresh. Showed the usual changes.

Spinal cord.—Many degenerated fibres in Goll's and Burdach's columns and Lissauer's root zones. An excess of connective tissue everywhere. Degeneration of the posterior roots more marked than of the anterior. Central canal obliterated throughout.

The following nerves, muscles, and intervertebral ganglia were examined:—

Nerves.—Vagi (right and left), phrenici (right and left), median (right), ulnar (right and left), radial (right), sciatic (right and left), anterior crural (right), posterior tibial (right and left), peroneal (right and left).

Muscles.—Biceps brachii (right and left), supinator longus (right and left), adductor magnus (right and left), flex. carpi uln. (right and left), peroneus longus (right and left), gastrocnemius (right and left), heart (left ventricle).

6th cervical	} Intervertebral ganglia.
3rd and 4th cervical	

Of the spinal nerves the phrenici were most affected, that of the right side only containing about half-a-dozen healthy fibres (*vide* drawings *va* and *vb*). The remainder were all considerably diseased, those situated most peripherally, viz., the radial, posterior tibial, and peroneal showing most degeneration. The vagi were both extremely diseased (*vide* drawings *i.* and *vii.*), and the vascular changes most marked.

The intervertebral ganglia showed changes similar to those described in Case III.

All the muscles showed rather advanced interstitial myositis; the vessels were in many cases diseased, some hyaline. "Neuritis fascians" was frequently observed, and the terminal motor twigs contained few healthy fibres.

CASE V.—Male, æt. 35; cause of attack unknown; no history of alcoholic or venereal excess; death two years after admission in a condition of extreme dementia and feebleness with ataxia.

Autopsy.—Pathologico-anatomical diagnosis, dementia para-

lytica (leptomeningitis chronica, atrophica cerebri, etc.), pleuritis (bilateralis), myocarditis, cirrhosis renum.

Microscopical examination.—*Cortex cerebri.*—Examined fresh showed the unmistakable changes of general paralysis.

The following nerves and muscles were examined :—

Nerves.—Vagi, phrenici, median (right), ulnar of both sides at the wrist and elbow, anterior crural (right), anterior tibial (left), and sensory and motor nerves from both extremities.

Muscles.—Heart (left ventricle), biceps brachii (right), supinator longus (of both sides), peroneus longus (right), and tibialis anticus (left).

The vagi nerves again extremely diseased, the phrenic nerves only slightly affected, and the remaining mixed nerves, with the exception of the anterior tibial, similarly to those of Cases I., II., III., and IV.

The anterior tibial nerve was most extensively degenerated, but few healthy fibres remaining. The perineurium was to a large extent infiltrated with fat, and the vessels greatly altered. The tibialis anticus muscle supplied by this nerve showed pronounced fatty infiltration of many of its fibres, the remaining muscles slight myositis. The sensory nerve twigs examined were more diseased than the motor.

The heart muscle was extraordinarily affected; few healthy fibres remained, and they were widely separated by numbers of round or oval nucleated bodies in which adventitial blood channels ran (*vide* drawing ii.).

CASE VI.—This case is of particular interest in furnishing an example of the neuro-muscular changes in those cases of *juvenile general paralysis* as described by Shuttleworth, Clouston, and Wigglesworth.*

Clinical report.—Male, æt. 15; admitted November 2nd, 1892; family history good; active and intelligent at school, but disinclined for lessons; neglect at the hands of his parents and privation were the assigned causes of his mental aberration, and his attack, on admission, had lasted over a year.

On admission he was undersized, giving one the appearance of being only about eight years old; height, 4ft. 3in.; weight, 5st. 4lb. Both legs were flexed and spastic; the knee reflexes much exaggerated; he had nystagmus and irregular pupils; pulse 80, small and irregular; heart sounds weak. Evidence of phthisis pulmonalis.

Mentally he appeared happy, but cried when touched; his legs could be straightened apparently without occasioning severe pain. He took no notice of questions, and was regardless of his surroundings. He spoke little, and was dirty in his habits.

* A brief account of this case was given by Dr. Wigglesworth in this Journal in his paper on "General Paralysis about the Period of Puberty," July, 1893.

The further course of the disease was a progressively downward one. He developed tubercular enteritis, and died on the 20th March, 1893 (less than five months after admission, and less than two years after the commencement of the disease).

Autopsy.—Body extremely emaciated; legs drawn up and acutely flexed at the knee and hip joints; a slight bedsore over the right ilium; circumference of the head 21in.; calvarium thick and dense in parietal and occipital regions; sutures very close; sagittal suture measuring 5in. in length; vessels of the brain tough; dura mater rough and bulged. The subdural space, containing 13oz. of opalescent fluid, thin, firm, pale, and organized bilateral subdural hæmorrhages; pia-arachnoid opacity and thickening extreme; subarachnoid fluid if anything diminished, and adhesions of pia to cortex with decortication on stripping almost universal. Cerebral atrophy also extreme. Weight of encephalon, 912 grms.; right hemisphere, 367½ grms.; stripped of its membranes, 320 grms. Left hemisphere, 346 grms.; stripped, 285 grms. The convolutions of a simple type; sulci shallow; cortex shallow, dark, soft, congested and unstriated; white matter soft, boggy and atrophied; puncta cruenta numerous; basal nuclei small, with dilated perivascular spaces; ventricles dilated, ependyma thick. The cerebellum weighed 103 grms.; the pons and medulla together, 20 grms. Ependyma of ventric. iv. markedly granular.

On the spinal dura without that membrane, and particularly noticeable in the dorsal region, was a soft, easily detached membrane resembling a fibrinous subdural hæmorrhage of the brain.

The left optic nerve was much smaller than the right, and there was a left-sided iritis.

Lungs extremely tubercular; heart exceedingly small, weighing only 2½ ounces; muscle dark and firm; remaining organs all small; the kidneys cirrhotic; some tubercular ulcers in the intestines.

Microscopical examination.—Sections from various parts of the cerebral cortex cut fresh reveal the typical changes of advanced general paralysis.

Spinal cord (examined at the level of the third and sixth cervical, third and ninth dorsal, and fifth lumbar pairs of nerves). Shows an increase of connective tissue elements in various tracts, most prominent in the crossed pyramidal tracts along the whole length of which it is continuous. In the sixth cervical region the inner portion of the posterior columns is sclerosed, and in the lumbar region Lissauer's root zone is in a similar condition. Some of the nerve cells of the anterior cornua give indications of degeneration. Clarke's columns are healthy. The anterior and posterior nerve roots are slightly and equally diseased in the upper cervical and dorsal regions; in the lower cervical and lumbar segments the change predominates in the posterior roots. Thickening of vessels is almost universal, and the central canal is almost obliterated throughout.

Nerves and muscles.—The following were examined:—

Vagi (right and left), phrenici (right and left), median (left), ulnar (left), sciatic (right), peroneal (right and left), oculo-motor (right and left), biceps brachii (right and left), peroneus longus (right and left), gastrocnemius (right and left), heart (left ventricle).

The vagi nerves were most extensively diseased, a great number of healthy fibres had disappeared, there was a marked increase of connective tissue; numerous nuclei and minute nerve fibres not staining with hæmatoxylin were seen. The vessels were markedly diseased.

The left vagus was more affected than the right. The remaining nerves were all diseased, but not to so great an extent. The vessel changes in all formed a prominent feature.

Sections of the heart and of all the limb muscles showed most striking changes; the muscle fibres were almost all small, while many others were degenerated in addition. There was a most pronounced increase of nuclei, numerous instances of Eichhorst's "neuritis fascians" were seen, and the small vessels and terminal motor nerves were greatly diseased (*vide* drawing iii.).

CASES VII., VIII., IX., and X.—These were all cases examined to ascertain the changes in connection with the cranial nerves and their nuclei. They were all marked cases of general paralysis clinically, and the necropsy in each case fully confirmed the clinical diagnosis.

The parts examined were—(1) The pons and medulla at the nucleus of origin of each individual nerve (some being examined and stained fresh, others after hardening). (2) All the cranial nerves (with the exception of the spinal accessory) at their point of origin. (3) The third, fourth, fifth, sixth, seventh, and hypoglossal nerves also at a point in their peripheral distribution.

Shortly summarizing the more important points in connection with this investigation. (1) The nuclei of origin did not show marked degenerative changes, the pneumogastric nuclei were most affected, but still not extensively. The changes noted were isolated instances of nerve cell atrophy, hyper-pigmentation of nerve cells, and an increase of nuclei in the neuroglia. (2) The nerves at their origin, that is to say intracranially, did not show highly pronounced alterations either, though in few cases could it be said that they were quite free from disease. The preponderating change was an interstitial one, and in no case had such an extensive disappearance of fibres occurred as in the peripheral nerves. The nerves most diseased were the optic and

olfactory, the oculo-motor, trigeminal, and hypoglossal. The ascending root of the fifth nerve within the medulla oblongata was in three instances discovered to be the seat of very extensive interstitial changes, with disappearance of many healthy nerve fibres, and in one case the ascending root of the glosso-pharyngeal nerves presented like changes. (3) The more peripheral segments of the nerves examined by teasing after staining in osmic acid and carmine showed changes more marked than those observed in the nerves next their origin.

CASES XI. and XII.—These cases were examined with the chief end in view of testing the constancy of the changes in the vagi in this disease. In both instances the disease ran a rapid course, and marked cardiac irregularity, arrhythmia and feebleness were observed clinically. At the autopsy in one case the heart was fatty, in the other dark and firm. Microscopical examination of the brain and spinal cord revealed characteristic changes. The vagi were in both instances extensively diseased. The phrenici nerves and nerves from the upper and lower extremities showed less marked changes.

Synopsis with Remarks.

Changes in the vagi nerves.—It will be observed that in all my cases the pneumogastric nerves were extensively and strikingly diseased, more so almost than any of the peripheral nerves, and decidedly more than any cranial nerve. My observations in this connection entirely agree with those recently made by Colella (*loc. cit.*), and in my opinion it is impossible to attach too much importance to the remarkable singling out of the vagi for such extreme degeneration in this disease.

It is of interest, as Déjerine¹⁷ and Sharkey¹⁸ have pointed out, and as I¹⁹ have further drawn attention to, that a similar affection obtains in alcoholic polyneuritis, a disease distinctly produced by a toxic infection. A similar affection also occurs in other diseases (diphtheria, etc.), and in all it is unquestionably accountable for serious clinical changes; in general paralysis it explains the cardiac troubles so often met with, I

¹⁷ "Contribution à l'étude de la névrite alcoolique." "Arch. de phys. norm. et path.," 1887.

¹⁸ "Alcoholic Paralysis of the Phrenic, Pneumogastric, and other Nerves." "Transactions of the Path. Soc. London," 1888.

¹⁹ "Ein Beitrag zur path. Anatomie der sog. Polyneuritis alcoholica." "Zeitschrift für Heilkunde," Prag., 1892.

refer to the tachycardia, arhythmia, and feebleness of pulse (*vide* Mickle's²⁰ observations); and, as Hebold²¹ remarks, it probably also accounts for the sudden death of many general paralytics. (In addition to the clinical evidence of cardiac affection, I have been able to demonstrate, anatomically, the existence of most pronounced changes in the muscular elements of the heart in cases in which the vagi nerves were diseased.)

Further, disease of the vagi in other diseases has been held accountable for the indirect production of pulmonary tuberculosis, and Bianchi²² and Vulpian²³ lay great stress on the ætiological importance of this affection as a factor in the production of phthisis pulmonalis in general paralysis; their assumption bears greater weight when we consider the great frequency with which phthisis occurs in this disease (Mickle²⁴ and Browne²⁵).

The phrenic nerves, which are akin to the vagi in the importance of their function, though always diseased to a certain extent, are not as a rule so much involved as the vagi, yet it is not impossible that in some cases they may be very extensively diseased, and give rise to such a diaphragmatic palsy as occurs in other varieties of neuritis, and which Gerhardt²⁶ has recently associated with locomotor ataxia.

Changes in the mixed spinal nerves and their peripheral terminations.—Concerning the changes in these nerves it is seen that the alteration appears to be a combination of a parenchymatous degeneration* and an interstitial or adventitial inflammation. I cannot agree with Colella that the change is a purely parenchymatous one, as numbers of my specimens amply demonstrate the existence of marked peri and endoneural fibro-cellular proliferation, while in some, in addition to the interstitial change, a superimposed secondary

²⁰ (a) "Journal of Mental Science," Apr., 1872, p. 31. (b) "On General Paralysis of the Insane," 2nd Ed., p. 186.

²¹ "Ein Fall von Vaguskrankung bei progressiver Paralyse." "Allg. Zeitschrift für Psychiatrie, Berlin," 1888, xliv, p. 495.

²² "La pulmonite dei paralytici e la degenerazione dei nervi vaghi." "La Psichiatria," 1889.

²³ "Les Nerfs vasomoteurs," v., ii.

²⁴ *Loc. cit.* (b), p. 296. This writer found tubercle in an average of 25 per cent.

²⁵ "The Pulmonary Pathology of General Paralysis." "Brain," 1883-84, vi., pp. 317-341.

²⁶ "Tabes mit Zwerchfellsähmung." "Berliner klinische Wochenschrift," No. xvi., 1893.

* So called by Vanlair, Déjerine, Gombault, etc.; described as "degenerative atrophy," or simple degeneration of the nerve fibres, by others.

fatty infiltration has supervened, similar to that seen in the neuritis of phosphorus poisoning; nevertheless, it would be a mere premature conjecture to state that this interstitial change is a primary essential one, as, judging from one's experience of other neurites, much similar interstitial alteration can arise secondarily to parenchymatous degeneration, and the acuter the degeneration the greater is the production of connective tissue elements.

The existence in that portion of the nerve trunk, from which healthy nerve fibres have disappeared, of a number of exceedingly small nerve tubes with extremely thin medullated sheaths, unstained by Weigert's hæmatoxylin, or the modifications of Weigert's method, is very remarkable. Now it is highly doubtful whether these minute fibres could ever develop into large, functionally healthy ones again. The change, therefore, appears rather to be a textural reversion to an embryonic or lower type, comparable with the pial adhesions, the subpial feltwork, and the enormous nuclear proliferation occurring in the cortex cerebri (*Cf.* Mickle, 2nd Edition, p. 340).

In accordance with Goodall and Ruxton's observations in general paralysis, and Lorenz's²⁷ and my own in other forms of neuritis, I have noted in all my cases a marked affection of the small blood-vessels accompanying the nerves. This condition is by no means peculiar to general paralysis, and its pathology is still enigmatical.

The result of my investigations coincides with those of others in regard to the remarkable fact that the more peripheral the site examined in the mixed trunk, the more extensive will the degeneration be found to be; and when one reaches the motor and sensory branches the degeneration is still more advanced and pronounced. The affection is on the whole symmetrical, but the nerves of the lower limbs are more diseased than those of the upper extremities, and in some cases the purely motor twigs are more affected than the purely sensory ones, and *vice versa*.

I have not been able definitely to determine whether it is in those cases of dementia paralytica with tabetic symptoms that the sensory branches are most diseased, but that hypophoresis does not appear unlikely.

Spinal nerve roots.—The anterior roots and that portion of the posterior roots lying between the cord and the ganglion

²⁷ "Beitrag zur Kenntniss der multiplen degenerativen Neuritis." "Zeitsch. für Klin. Med.," 1891.

offered fairly constant change. The degree of degeneration was always considerable, but never extensive. It is difficult to decide in which segments of the cord the roots were most affected, but those of the cervical, lower dorsal, and upper lumbar seem to have suffered most. In the posterior root ganglia no obvious degeneration of nerve cells beyond some hyper-pigmentation was noticed, and the posterior roots beyond the ganglia were but little diseased.

Changes in the muscles.—When we consider the extreme degree of muscular atrophy which occurs in this disease, it is not remarkable that extensive microscopical alterations should reveal themselves, but as regards the main features of these alterations they do not differ to any noteworthy extent from those changes described in connection with other neurites, and do not appear to possess much primary character, being, in all probability, chiefly secondary effects of the nerve degeneration. In brief, the changes I have noted are fatty degeneration, atrophy, and complete or partial disappearance of a number of muscle fibres, with proliferation and increase of the nuclei of the sarcolemma and connective tissue; the number of normal motor end plates is decidedly lower than in health, while some are seen in process of degeneration; in some muscles the condition described by Eichhorst²⁸ under the name of “neuritis fascians” can be seen.

Since Eichhorst holds that the vagi nerves are the trophic nerves of the heart, and that death after vagotomy is due to the resulting fatty degeneration of the muscle, it is again not astonishing when we remember the extreme degree of affection of the vagi nerves, that severe changes should be found in the muscle fibres of this organ. In my cases I have almost invariably found changes of a degenerative myocarditic nature, resulting in the disappearance of a number of healthy fibres, increase of the nuclei of the sarcolemma, and thickening of small vessel walls.

Cranial nerves and their nuclei of origin.—My examination of the series of cranial nerves (with the exception of the vagi) has not led to any discovery much further than those which have been reported by previous writers on this subject (Wiglesworth,²⁹ Mickle, *loc. cit.*, Colella, *loc. cit.*). I am

²⁸ “Neuritis, fascians. Ein Beitrag zur Lehre von der Alcoholneuritis.” “Virchow Archiv,” 112 B., 1888.

²⁹ Note on optic nerve atrophy preceding the mental symptoms of General Paralysis of the Insane. “Journal Ment. Sci.,” 1889, pp. 389-391.

enabled to confirm the existence of more or less constant interstitial degenerative changes in many of these nerves, and to add that in these nerves, as in the case of the peripheral nerves, the changes seem most marked at the periphery. (This was at any rate the case in the oculo-motor, trigeminal, facial, and hypoglossal nerves, portions of which were examined, both peripherally and at their origin.) The ascending root of the fifth nerve in the medulla oblongata was also found in many cases to be markedly sclerosed. This point is of more than passing interest, as the same thing occurs, as Oppenheim first pointed out, in *tabes dorsalis*. A similar degeneration is incidentally mentioned in a case cited by Bevan Lewis.³⁰

In regard to the nuclei of origin, the changes noted were not at all proportionate to those found in the nerves, still, in many of them there were evident traces of degeneration, in the shape of cell atrophy, hyper-pigmentation and connective tissue hyperplasia, and this change, as one would expect, was most marked in the vagi nuclei (Colella states that these nuclei will not be found to be diseased).

Pathology and Conclusion.

Indubitable evidence has now been adduced of the widespread distribution of the disease in the great controlling nervous apparatus. Undeniable clinical signs point to the fact that that system is the one which is primarily affected, but what factor it is that generates that nerve destruction is, and must for some time remain, a pure matter of conjecture, and since we know practically nothing of the precise character of the pathogenic influence or factor which determines the malady in question, it is extremely difficult to frame a distinct pathology for the attendant neuro-muscular changes; still, taking the neuro-muscular changes in this disease separately into consideration, and comparing them with the changes in other varieties of multiple neuritis, we find that there exists a close resemblance, from an anatomical standpoint, between the neuro-muscular changes in general paralysis and each of the five groups of multiple neuritis, and there is, further, one group with which the changes of general paralysis can be pathogenetically compared, viz., the *primary intrinsic toxæmic*; the secondary toxæmic, the purely toxic, the endemic, the rheumatic, and the cachectic, or senile, being out of the question.

³⁰ "Text-Book of Mental Diseases," London, 1889, p. 283.

(This naturally refers only to purely idiopathic cases of general paralysis, and not to those cases in which syphilis or alcohol has played a pathogenetic rôle, and necessarily induced their well-known secondary toxæmic effects upon the peripheric nerve system. Grave nerve changes I claim to have found in such uncomplicated cases, and in spite of the statements that juvenile general paralysis usually occurs in those children with syphilitic taint, I claim the juvenile case I have cited as an excellent example of the point in question, since no trace whatever of hereditary or primary syphilitic infection was discoverable in that case.)

Continuing in support of this comparison, I would say that the changes occurring in general paralysis are certainly compatible with those seen in those toxæmic neurites in which the virus, so far as is known, is primarily and intrinsically produced within the body independently of any definite or known disease, and, further, such a morbid blood state provides us with a far more reaching and sufficient explanation of the general widespread disposition of the disease, the affection of columns in the spinal cord not in physiological connection with the cranial centres or the peripheral nerves, the symmetrical distribution of the disease in the peripheral nerves, and the universal implication of the small vascular channels; further, the proliferation of cells in the lining membrane of the ventricles of the brain and spinal cord, which is so essential a feature of general paralysis, and so often observed in other pure toxic neurites (*e.g.*, alcoholic neuritis), obviously supports this theory by pointing to the presence of a toxic material in the cerebro-spinal fluid, which, as we know, is intimately connected with the blood.

In advancing this hypothesis, it is seen that it is impossible for me to reconcile myself to the view that the peripheral neuro-muscular alterations are of an entirely secondary character, that is to say, dependent upon general malnutrition induced by primary brain changes. That they may be partially so I have no desire to deny, since it is clearly established that imperfect tissue changes may generate a toxic agent capable of acting injuriously upon the nerves (*cf.* diabetes and anæmia). Still, in fatal cases of general paralysis, in which the cerebral and mental disease has not been at an advanced stage, I have found most pronounced changes in the peripheric nerves, and abundant clinical evidence exists proving the early appearance of these changes;

further, the general anatomical appearances are not at all compatible with such a view; and in Case VI., which I have cited, where the muscle changes were far in advance of the nerve changes, it is impossible to imagine that these changes are entirely secondary to the brain affection. This case, indeed, is comparable with Siemerling's³¹ case of alcoholic neuritis, which led him to formulate the theory that the extreme changes in the muscles in that disease are a result of the direct action of the toxæmic poison upon the muscular tissue.

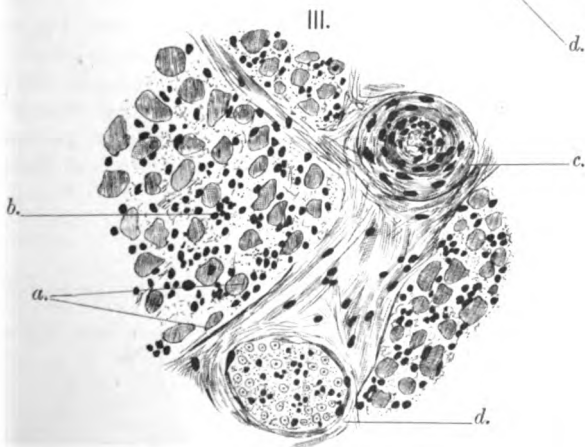
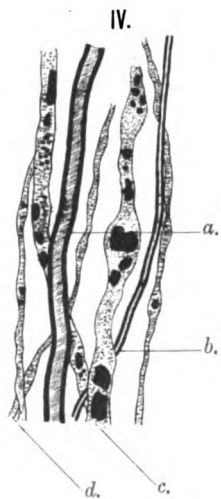
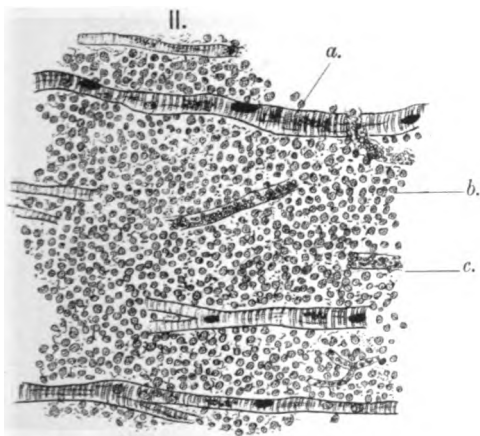
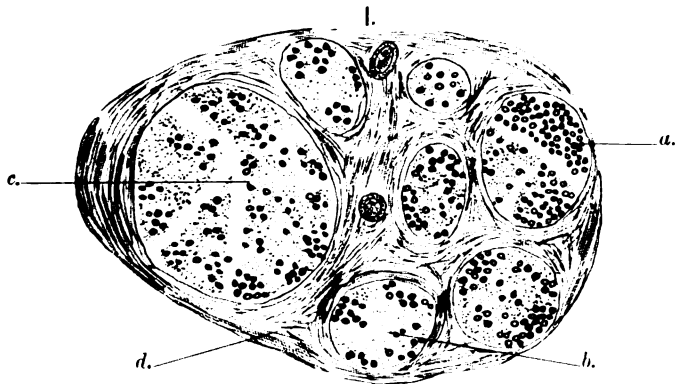
With regard to the many other theories concerning the pathology of general paralysis, the vaso-motor so strongly credited by Klippel,³² the inflammatory, the congestive, and so on, in support of each of which strong arguments have been put forward, even if it were in my province to discuss them, space would not allow it. Suffice it to say that I do not consider that any of them afford sufficient explanation of the changes which I have described.

The fact that the more peripherally situated portions of nerves are most diseased is explained in this condition as in some other neurites by their situation; there they are furthest removed from their trophic supply and being the most highly-organized and functionally susceptible parts of the nerve, they are placed at a disadvantage. A toxic agent would, in this situation, operate with greatest effect. We assume this applies to motor and sensory nerves alike.

Now that we are clearly decided as to the existence of these degenerative changes in the peripheral nerves, it is much easier for us to explain many of the motor and sensory changes which crop up clinically in the course of the disease; much of the paralysis and paresis is undoubtedly due to the peripheric nerve affection. The muscular atrophy and wasting, and numerous cutaneous, sensory, and trophic changes, etc., are in the same category. Articulatory failure and troubles of deglutition can be based on a similar pathology, and cardiac and pulmonary troubles I have already referred to.

³¹ "Ein Fall von Alcoholneuritis mit hervorragender Betheiligung des Muskelapparates." *Charité Annalen*, 1889.

³² "Lésions des poumons du cœur, du foie et des reins dans la paralysie générale." *Archives de méd. expérimentale*, July 1, 1892.



To illustrate Dr Campbell's Article.



To illustrate Dr Campbell's Article.

KEY TO ILLUSTRATIONS.

I.—Transverse Section: Pneumogastric nerve. Case IV. Method of Weigert. $\times 70$.

- A. Healthy nerve fibres.
- B. Unstained fibro-cellular tissue (remains of diseased nerve fibres.)
- C. Extremely diseased large bundle containing few healthy fibres.
- D. Thickened perineurium.

II.—Heart: Left ventricle. Case V. Hæmatoxylin and Eosine. $\times 250$.

- A. Comparatively healthy muscle fibre.
- B. Round celled growth replacing muscle fibres.
- C. Adventitial blood channel.

III.—Transverse Sections: Biceps brachii. Case VI. Hæmatoxylin and Eosine. $\times 250$.

- A. Muscle fibres of small size.
- B. Proliferation of nuclei of sarcolemma.
- C. Artery showing thickening of all coats leading to partial obliteration of lumen.
- D. Intra-muscular nerve twig, showing signs of disease.

IV.—Intra-muscular Nerve, bundle-teased. Case I. Osmic acid.

- A. Healthy nerve fibre.
- B. Small nerve fibre.
- C. Nerve fibre undergoing acute parenchymatous degeneration.
- D. Advanced stage of degeneration.

V.—(a). Transverse Section: Phrenic Nerve. Case IV. Hæmatoxylin and Eosine. $\times 70$.

The nerve is extremely diseased. Nerve fibres almost entirely replaced by fibro-nuclear hyperplasia.

- A. Thickened blood vessel.
- (b). Same nerve stained by method of Weigert.
 - A. The only remaining healthy nerve fibres, tinted violet.
 - B. Fibro-cellular tissue, undifferentiated.

VI.—External Cutaneous Nerve (arm), teased. Case I. Osmic Acid and Picrocarmine. $\times 300$.

- A. Comparatively healthy nerve fibre.
- B. Nerve fibre in condition of acute parenchymatous degeneration.
- C. Minute nerve tubule with well-marked axis cylinder, but thin medullated sheath.
- D. Altered neurilemma, the sole remains of diseased nerve fibres.

VII.—Portion of Transverse Section of Vagus Nerve. Case IV. China Blue and Hæmatoxylin. $\times 400$.

- A. Healthy nerve fibre.
- B. Nuclear hyperplasia.
- C. Collection of minute nerve tubules.

On Melancholia : An Analysis of 730 Consecutive Cases. By
W. F. FARQUHARSON, M.B., Assistant Medical Superin-
tendent, Counties Asylum, Carlisle.

(Continued from p. 21.)

Conditions as to age affecting attacks of melancholia.

I. *Admissions.*—The following table shows in decennial periods the numbers admitted at different ages, and the percentage proportion of admissions in each age-period :—

Age-periods.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	Tl.
Numbers admitted...	18	110	161	160	160	96	25	730
Percentage proportions ... }	2.5	15.1	22.1	21.9	21.9	13.1	3.4	100

The maximum number of admissions of melancholia occurred during the 30-40 age-period, and this was almost identical with the numbers admitted during the two succeeding periods; 65.9 per cent. of the cases admitted were between the ages of 30 and 60 years; 16.5 per cent. were above 60 years of age; only 17.6 per cent. were below 30 years of age. Thurnam* gives the percentage proportion admitted (and re-admitted) at different ages, out of 21,333 cases of all varieties of insanity, treated in twenty asylums (British, Continental, and American), the average results being as follows :—

Age-periods.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Percentage proportions admitted ... }	0.4	5.4	25.3	26.3	22.6	12.7	5.9	1.6	1.5

Comparing these statistics with the corresponding proportions of the 730 cases of melancholia, it is to be noted that in both instances the maximum number of admissions

* "Statistics of Insanity," p. 161.

occurred in the 30-40 age-period, but the proportion of cases of melancholia admitted in the 20-30 age-period is 10 per cent. lower than the average number of admissions of all classes of cases in that period; 30·74 per cent. of all classes of cases admitted were below 30 years of age, as compared with 17·6 per cent. of the cases of melancholia; only 7·65 per cent. of all classes of cases admitted were above 60 years of age, as compared with 16·5 per cent. of the cases of melancholia; only 20·35 per cent. of all classes were above 50 years of age, as compared with 38·4 per cent. of the melancholic cases. These statistics show that melancholia is most frequently met with in persons between the ages of thirty and sixty years, that it is proportionately less common below thirty, and more frequent in advanced life than other forms of insanity.

II. *Recoveries.*—The following table shows in decennial periods the numbers admitted at different ages, the numbers of those admitted in each age-period who recovered, and the percentage proportion of recoveries to admissions at different ages:—

Age-periods.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	Tl.
Numbers admitted...	18	110	161	160	160	96	25	730
„ recovered...	13	70	105	95	79	53	8	423
Proportion per cent. of recoveries to admissions...	72·2	63·6	65·2	59·4	49·4	55·2	32	57·9

The highest recovery-rate was thus obtained amongst the cases of adolescent melancholia; the proportion of recoveries progressively diminished in each succeeding age-period, with two exceptions; the recovery-rate in the 20-30 age-period was slightly below that of the succeeding period, and the recovery-rate in the 60-70 period was almost 6 per cent. higher than that of the 50-60 period. On the whole, then, it may be stated generally that the chance of recovery from an attack of melancholia diminishes as the age increases; but even when the attack comes on in advanced life there is a fair chance of recovery.

III. *Deaths.*—The next table shows the numbers of those admitted in each age-period who died, and the percentage proportion of deaths to admissions at different ages.

Age-periods.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	Tl.
Numbersadmitted...	18	110	161	160	160	96	25	730
„ died ...	1	6	20	27	45	35	12	146
Proportion per cent. of deaths to admissions ... }	5.5	5.4	12.4	16.8	28.1	36.4	44	20

The proportion of deaths was practically identical in the first two age-periods, and was the lowest of all; it rose progressively, and reached its maximum in the 70-80 age-period.

Duration of the disorder on admission.—In the following table the cases of melancholia are grouped into four classes according to the duration of the disease before the patient was brought to the asylum; the results of treatment of the cases in the different classes are shown, and these bear out the importance of this factor in relation to the prognosis in cases of mental disease:—

Class.	Admitted.	Recovered.	Died.	Relieved and Unimproved.	Remaining under treatment.
First Class— 1st attack and within 3 months on admission ... }	345 or 47.2 per cent.	202 or 58.5 per cent.	69 or 20 per cent.	45 or 13.04 per cent.	29 or 8.4 per cent.
Second Class— 1st attack, above 3 and within 12 months on admission ... }	157 or 21.5 per cent.	86 or 54.7 per cent.	32 or 20.5 per cent.	18 or 11.5 per cent.	21 or 13.3 per cent.
Third Class— Not 1st attack, and within 12 months on admission... }	149 or 20.4 per cent.	105 or 70.4 per cent.	22 or 14.7 per cent.	10 or 6.7 per cent.	12 or 8.1 per cent.
Fourth Class— 1st attack or not, but of more than 12 months on admission }	79 or 10.8 per cent.	30 or 37.9 per cent.	23 or 29.1 per cent.	12 or 15.2 per cent.	14 or 17.7 per cent.
Total ...	730	423 or 57.9 per cent.	146 or 20 per cent.	85 or 11.6 per cent.	76 or 10.4 per cent.

Nearly half of all the cases admitted fell under the first class, and in little more than one-tenth of the cases was the disease of longer than a year's standing on admission.

With regard to the recoveries, the most favourable from this point of view have been relapsed cases brought to the asylum within a year from the onset of the attack; no fewer than 70·4 per cent. of the cases in the third class terminated in recovery. The next highest recovery-rate was obtained in cases of the first-class; this was a little above the general recovery-rate of all the cases combined, and 4 per cent. above the rate in the second class. Only 37·9 per cent. of the cases of more than a year's standing on admission recovered. The general facts to be deduced thus are that the shorter time the patient has been insane before being brought to the asylum the greater are the prospects of recovery; and the recovery-rate in relapsed cases of short duration is higher than the rate in first cases of corresponding duration. In relation also to the death-rate, the classes come in the same order; the lowest proportion of deaths occurred in the third class, and the highest in the fourth class. The unfavourable results in the cases that had been of long duration before admission are also shown in the large proportion of them which have become chronic; 32·9 per cent. of the cases in the fourth class were either discharged unrecovered or remained under treatment at the end of 1892, as compared with the proportion of 14·7 per cent. of such cases in the third class, 21·4 per cent. in the first class, and 24·7 per cent. in the second class.

Duration of treatment or residence in those that recovered and in those that died :

Length of Residence.	Recovered.	Died.
Under one month	1	10
1 month and under 3 months ...	42	14
3 months " 6 " ...	157	14
6 " " 9 " ...	82	8
9 " " 12 " ...	26	8
1 year and under 2 years ...	60	21
2 years " 5 " ...	42	37
5 " " 10 " ...	10	21
10 " " 15 " ...	1	9
15 " " 20 " ...	2	3
20 " " 25 " ...	0	1
Above 25 years	0	0
Total	423	146

I. Recoveries.—The period in the above table during which the largest proportion of individuals was discharged recovered was from three to six months after admission, when 37·1 per cent. of the total number who recovered were discharged. The duration of the attack in those that recovered varied greatly, and in some instances was very prolonged; in two of the cases recovery took place after more than 15 years' residence in the asylum. This constitutes a hopeful feature of melancholia, that however long the disease may go on, so long as it remains a case of pure melancholia, there is always a chance of recovery. Of the cases of melancholia that terminated in recovery, 10·1 per cent. were discharged within three months, 47·2 per cent. within six months, 66·5 per cent. within nine months, 72·8 per cent. within twelve months; 87 per cent. recovered within two years, leaving 13 per cent. who took more than two years to get over the attack.

II. Deaths.—Of the cases that terminated in death, 6·8 per cent. died within a month of admission; several of these were in an extremely exhausted and almost moribund condition when brought to the asylum; 16·4 per cent. died within three months of admission, 26 per cent. within six months, 37 per cent. within twelve months, 51·4 per cent. within two years, 76·7 per cent. within five years, and 23·3 per cent. after more than five years' residence.

Relapses.—The following table shows the proportion of relapsed cases of insanity in the 730 cases of melancholia under consideration :—

	Males.	Females.	Total.
First attack	262	308	570
Not first attack ... {	72 or 21·5 per cent.	88 or 22·2 per cent.	160 or 21·9 per cent.
Total cases... ..	334	396	730

There was thus a slight excess in the proportion of female as compared with male relapsed cases.

Amongst the total cases of melancholia there were 29 men and 30 women, 59 persons in all, who were admitted into

Garlands Asylum more than once in the course of these 27 years suffering from melancholia; of these there were 21 men and 24 women who had two attacks of melancholia treated here; seven men and four women had three attacks; two women had four, and one man five attacks. The re-admissions, therefore, amount to 77, 39 male and 38 female; deducting these from the total number of cases admitted, the number of *persons* under treatment for melancholia is found to have been 295 men, 358 women, in all 653 persons. In addition to the readmissions just mentioned there were 16 men and 20 women, 36 persons, who, although they were only admitted once suffering from melancholia, had their attack of melancholia preceded by an attack of mania for which they had undergone treatment in this asylum. In the remainder of the relapsed cases the attack of melancholia treated here had been preceded by one or more attacks of insanity treated elsewhere, either at home or in another asylum.

Influence of hereditary predisposition.—Hereditary predisposition was ascertained to exist in the following proportion of the cases of melancholia:—

	Males.	Females.	Total.
Total cases	334	396	730
Cases with H.P. ... {	141 or 42·2 per cent.	138 or 34·8 per cent.	279 or 38·2 per cent.

Probably hereditary predisposition to insanity existed in a considerably greater proportion of the cases than is shown above; the friends from mistaken ideas of shame often conceal the fact of hereditary mental taint, and in other cases there is not sufficient information obtainable about the family history of pauper patients. The hereditary nature of melancholia has been recognized from the oldest times. Burton * gives quotations from many ancient authors on this point; "I need not, therefore" (he says), "make any doubt of melancholy but that it is an hereditary disease." Dr. Hugh Grainger Stewart in an admirable paper † discussed fully the subject of hereditary insanity. His examination of

* "Anatomy of Melancholy," p. 137.

† "Journal Ment. Science," Vol. x., p. 50.

the cases admitted into the Crichton Institution, Dumfries, showed that hereditary predisposition existed in 57·7 per cent. of the cases of melancholia treated there, and that, excluding dipsomania, melancholia was the most frequent form of hereditary insanity. A similar conclusion was arrived at by Esquirol; * 48·6 per cent. of his cases of melancholia showed hereditary predisposition as compared with 24·9 per cent. of his cases of mania. The female sex was stated by Grainger Stewart (confirmed by statistics of Hood, Guislain, and Thurnam) to be more liable to attacks of hereditary insanity, but this is not corroborated by the statistics of these cases of melancholia; hereditary predisposition was ascertained in 42·2 per cent. of the male and only in 34·8 per cent. of the female cases. As regards the effects of hereditary predisposition on the age at which the attack of melancholia comes on, the following table shows in decennial periods the numbers admitted at different ages with the percentage proportion admitted in each age-period :—

Age-periods.	10-20	20-30	30-40	40-50	50-60	60-70	70-80	Total,
Hereditary cases admitted	7	49	54	68	63	30	8	279
Percentage proportions	2·5	17·6	19·4	24·3	22·6	10·7	2·9	100
Non-hereditary cases admitted ...	11	61	107	92	97	66	17	451
Percentage proportions	2·5	13·5	23·7	20·4	21·5	14·6	3·8	100

The above figures show that on the whole the hereditary cases are apt to suffer earlier in life than the non-hereditary; 20·1 per cent. of the hereditary cases admitted were below thirty years of age as compared with 16 per cent. of the non-hereditary; 13·6 per cent. of the hereditary cases admitted were above sixty years of age, as compared with 18·4 of the non-hereditary.

* "Des Maladies Mentales," Vol. ii., p. 144.

Considering next the number of attacks in hereditary as compared with non-hereditary cases, the following are the results:—

	Hereditary.	Non-hereditary.
First attack ...	215 or 77 per cent.	355 or 78·7 per cent.
Not first attack	64 or 23 per cent.	96 or 21·3 per cent.

There was thus a somewhat greater proportion of relapsed cases amongst those with hereditary predisposition. This greater tendency of hereditary cases to relapse is much more strikingly shown in the statistics given by Dr. Grainger Stewart of cases admitted into the Crichton Institution, the proportions there having been as follows:—

	Hereditary.	Non-hereditary.
First attack ...	284 or 64·69 per cent.	192 or 80 per cent.
Not first attack	155 or 35·33 per cent.	48 or 20 per cent.

Turning now to the proportion of recoveries and deaths in the hereditary as compared with the non-hereditary cases, the following results have been ascertained:—

	Hereditary.	Non-hereditary.
Total cases ...	279	451
Recovered ...	168 or 60·2 per cent.	255 or 56·5 per cent.
Died ...	50 or 17·9 per cent.	96 or 21·3 per cent.

The recovery-rate was thus higher and the death-rate lower in the hereditary than in the non-hereditary cases.

Causation of melancholia.—Leaving out of consideration hereditary predisposition and previous attacks, the cause of the attack of melancholia was found in a marked prepon-

derance of cases to be of a physical nature; in over 400 of the 730 cases there was ascertained to be some such cause at work in originating the mental depression. Intemperance in drink was assigned as a cause in 84 cases (11·5 per cent. of the total), pregnancy in 7 cases, parturition and the puerperal state in 20 cases, lactation in 23 cases, accident or injury in 22 cases, privation and starvation in 28 cases, and in a large number of other cases there was some kind of physical disorder preceding the melancholia. In about 250 cases the mental depression was assigned to some moral cause; even in some of these cases, however, there was also some physical cause at work. Business anxieties constituted the most common moral cause amongst the men, domestic affliction amongst the women.

Treatment of melancholia.—The general treatment of the cases of melancholia here has been directed towards building up the bodily strength. One of the leading symptoms in many of the cases has been loss of appetite, frequently going on to refusal of food; this has to be combated by the administration of abundance of nourishment of a digestible kind, along with plenty of open air exercise, attention to the state of the bowels, tonics, and stimulants when necessary. In 59 of the cases, owing to the patient absolutely refusing all food, artificial feeding with the stomach-tube had to be resorted to for a longer or shorter period. Sleeplessness is often a distressing feature of the case. Paraldehyde has been the chief hypnotic used in Garlands Asylum of late years, and its results have been very satisfactory. Suicide has, of course, to be guarded against by careful watching. At the same time efforts have to be made to get the patients to occupy themselves with suitable work of some kind, and to render their surroundings as bright and cheerful as possible.

Summary.—From the foregoing statistics, the following general statements with regard to melancholia may be deduced.

1. Melancholia is roughly about half as frequent as mania in the cases of insanity sent to an asylum.

2. Fluctuations in the state of trade, "strikes," and "lock-outs;" the prevalence of some epidemic disease, such as influenza; or the presence of some other factor which affects the general health of the community exercise some influence on the amount of melancholia in a district.

3. Melancholia in the counties of Cumberland and West-

morland seems more frequently to attack the female than the male sex.

4. The recovery-rate in the cases of melancholia treated in Garlands Asylum has been higher amongst the males than the females, and the total recovery-rate has been considerably higher than in the cases of mania admitted during the same period.

5. In the majority of cases the mental depression is sooner or later accompanied by the presence of delusion; the simple cases of depression without delusion are the most favourable as regards prospects of recovery.

6. The suicidal impulse was present in over 65 per cent. of the Garlands cases; and in more than half of the suicidal cases an actual attempt at self-destruction was made at some time.

7. In a considerable number of cases the mental depression is associated with some distinct organic physical disease; phthisis has been the most frequent of such concomitants in the Garlands cases.

8. The death-rate has been slightly higher in the male than in the female cases of melancholia. The commonest cause of death has been phthisis pulmonalis, the next most frequent being exhaustion from melancholia.

9. Melancholia is most apt to occur between the ages of thirty and sixty years; it is proportionately less frequent in the earlier periods of life than mania, and more frequent at an advanced age. The prospect of recovery is greatest when melancholia comes on in early life, and as a general rule the chance of recovery diminishes as the age on attack increases; but recovery may take place even in advanced life.

10. The duration of the attack of melancholia before the patient is brought to the asylum has a most important effect on the ultimate result of the case; the sooner the patient is brought to the asylum the greater is the chance of recovery. The recovery-rate in relapsed cases of short duration is higher than the rate in first attacks of corresponding duration.

11. The duration of treatment in the asylum varies greatly; in a large proportion of cases recovery takes place within a few months. On the other hand cases of melancholia may recover after many years' residence in the asylum.

12. Of those who were discharged, 15 per cent. were re-admitted suffering from melancholia.

13. Melancholia is a form of insanity in which hereditary predisposition is most strongly manifested; in hereditary cases the disease is apt to come on earlier in life, relapses are more frequent, the recovery-rate is higher, and the death-rate lower than in non-hereditary cases.

14. The cause of an attack of melancholia is most frequently of a physical nature, less commonly it is of a moral or mental character.

15. The treatment consists essentially in the promotion of a healthy state of body, along with the endeavour to substitute a normal train of thought for those morbid imaginations which render the life of the sufferer a burden to himself.

*Current Opinion on Medico-Psychological Questions in Germany, as represented by Professor Ludwig Meyer, of Göttingen.** By A. R. URQUHART, M.D.

It was my fortune to spend a week at Göttingen in the month of May of this year, and the following notes of conversations and extracts from the published writings of Professor Meyer† may be taken as representing the opinion of the best German school of psychiatry at the present time. Professor Meyer's career has been long and distinguished. Educated at Berlin, imbued with an enthusiasm that impelled him to teaching there as early as 1858, he was in due course appointed to the Hamburg Asylum, whence he was transferred to Göttingen more than a quarter of a century ago. His name is familiar as an authority on mental diseases, and his present position is indicated by his having been selected to report upon "Psychiatry," in the volume descriptive of the German Universities prepared for the Chicago Exhibition.

It is manifestly impossible to survey the whole field of psychological medicine within the limits assigned to this paper; but one or two questions of special interest may be discussed with advantage.

The asylum at Göttingen was built with the definite purpose of providing clinical instruction for the students of the university; and, as the further development of that fundamental idea continues dominant in Professor Meyer's pro-

* Paper read at the Annual Meeting of the British Medical Association at Newcastle-on-Tyne.

† Honorary Member of the Medico-Psychological Association, 1867.

professional life, the first section of this paper will be devoted to a brief review of German teaching. The genius of the nation is eminently pedagogic, and it might therefore be expected that the administrative department of their asylum management would not progress so rapidly as their scientific work and skilful teaching. It is true that Germany shares with its neighbours in the higher standard of comfort these last decades have achieved. One cannot but remark the difference in this respect. The homes of the people, the institutions of the country have been alike beneficially affected.

Taking the Göttingen Asylum as typical of the constructive ideas of twenty-five years ago, we find it built on rising ground in the vicinity of the town, surrounded by pleasant grounds, presenting the usual architectural features of the corridor plan. But, of late, stimulated by the success of Alt Scherbitz, and embodying the enlightened opinions of his life, Professor Meyer has added two separate villas of a domestic character to the establishment, and has induced the authorities to believe that this is the rational plan of enlarging the institution. In this and in other directions it is evident that he is animated by ideas happily now common to European civilization, viz., the approximation, in so far as possible, to home-life, while administering the whole from a medical point of view.

I. *Teaching of psychological medicine.*—With regard to the teaching of psychological medicine in Germany, the struggles of the past, the inadequacies of the present, and the hopes for the future, a very brief sketch must suffice. Dr. Sibald has referred to the position of affairs in 1871,* but since then there has been a remarkable advance. Then the teaching of psychiatry was tentative and optional, except in Bavaria. Now every university is bound to provide instruction, and it is believed that the subject will soon be made compulsory in the State examinations.

Modern medical science, as applied to insanity, has scarcely achieved its first century of development, and the medical teaching of the German Universities can scarcely be understood without a short retrospect of its earlier history. The Hippocratic doctrine that insanity was caused by disease had been lost in the superstitious beliefs of the middle ages. It seemed a sin to believe that the mind could be subject to the same natural influences as the body; but it was generally acknowledged that it was swayed by supernatural forces and

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might be possessed by them. It is curious to remark that Charcot brought the old word "obsession" into reputation, and indeed no better designation could be found for certain morbid dominating conditions of mental action. It is claimed by Germans, however, that demonology and witchcraft were first attacked in the 16th century by Johann von Weier, a physician of Cleves, and that his work was a prelude to the downfall of these debasing superstitions.*

In the 18th century the weak-minded became the victims of "utilitarian" principles. If they seemed dangerous they were cooped up in cells, in prisons, or almshouses. Yet there were not wanting "regulations," prompted by pity and appreciation of the hardships of insanity, especially in the larger free towns. A woodcut, dating from the middle of last century, shows insane patients along with the medical and surgical cases under care and treatment in the Hamburg Hospital.

To Reil, no doubt, belongs the great merit of having disentangled psychiatry from Locke's narrow theory, which found in the insane nothing but a change in the working of the intellect. He perceived that common sensation was the germinating soil of insanity (1803), and how fruitful his conception was is shown in Griesinger's masterly treatise, which completes the idea of insanity being a pathological condition. In Germany, as elsewhere, there was a business-like empiricism which was regarded by those outside the charmed circle as a strange exotic. It was by the investigations of scientific research in clinical wards, by the results of pathological studies, that psychiatry was brought back into the domain of true medical science.

Jacobi, who was well known in England (1822), opposed Heinroth's theory of the common origin of insanity and sin, and by very extensive research sought to establish the somatic conditions of mental disease. He, however, too much ignored the organ, which, since the time of Hippocrates, had been recognized as the fundamental fact of all mental activity, whether normal or abnormal; and believed that the causes of insanity were disorders of the organs of respiration and circulation, and especially (with Schröder van der

* But see Professor W. T. Gairdner "On Insanity," speaking of Reginald Scot's "Discoverie of Witchcraft." "Nothing, however, is more evident than that Scot, however indebted to Weier (and both of them, probably, to Cornelius Agrippa), was far in advance of either in the clearness of his views—the unwavering steadiness of his leanings to the side of humanity and justice."

Kolk) of the great intestine. The insufficiency of these uncritical views was thoroughly demonstrated by Griesinger (1845).

It can be readily understood that such a definite disease of the brain as general paralysis of the insane should be next investigated. By methodical observation of temperatures, by histological research the conclusion was reached that this malady is really a slow inflammation of the cortex (Meyer, 1857). Further study of the lesions of the cord in general paralysis influenced physicians dealing with other cases of spinal disease, and thus led to the work of Westphal. The grand result was the discovery that the cerebral convolutions are the seat of the psychic functions, and further that different regions possess different functions. The experimental researches of Flourens proved that the whole cortex possessed functions, and that injury of one part might result in injury of another. Hitzig then showed that stimulation of a cortical area produces a localized distal disturbance, and once for all demolished the one-function theory. Thus, a definite obstacle to the further development of psychiatric investigation was removed, and the foundation of the law of cortical psychical centres was firmly laid. Meynert's celebrated work on Psychiatry (1877-1884), defined as "a clinical treatise on diseases of the fore-brain," marks the epoch with all the exactness possible to our present anatomical, clinical, and pathological knowledge. It is based on the conviction that the study of the structure, the function and the nutrition of the brain must precede and elucidate clinical facts, an impregnable base of operations for the future conquests of science. This work of investigation carried on by v. Gudden, influenced wider circles of the medical profession, and brought medico-psychological work into a line with other branches of physical research. The tendency is towards an accurate investigation of the phenomena of disease and a grouping of its forms in accordance with the natural distribution. This "fermentation" is a gratifying result of continual, resolute work, and will doubtless soon evolve a more solid structure.

If the gain to therapeutics cannot be stated so immediately, and in every single case, it is none the less considerable. The beneficial influence of pathological work on practical treatment is undoubted. With few exceptions coercive treatment has been laid aside, and if we bear in mind that we have to do with maladies of a slow and chronic nature we need not

undervalue the results in individual cases. It is only necessary to refer to such measures as rest in bed, the prophylactic use of bromide of potassium, and the introduction of such hypnotics as paraldehyde, sulphonal, etc.

As early as the beginning of the century Reil had proposed to utilize asylums for the instruction of students of medicine, and occasional lectures were given at Siegburg and Hildesheim. But it was evident that such a plan could only be successfully carried out in suitable localities, and from 1830 to 1840 systematic teaching was given at Würzburg, Berlin, Königsberg, and Jena. And, further, the claims of psychiatry to a position of importance in medical education could only be pressed after it became a true medical science in substance as well as form.

In the middle of 1850 the University of Göttingen, which a decade later offered the first independent course of medico-psychological training, prescribed lectures on this subject to students of medicine as being an inquiry nearly related to the science of philosophy. The decisive turning point was attained on the appointment of Griesinger to be teacher of psychiatry in the University of Berlin in 1865. This was the official recognition of the importance of the subject in the Capital of Prussia; but the dawn of a better day was more apparent in the union of clinics for nervous diseases and for insanity under Griesinger's direction. This union has never been threatened with dissolution by latter day developments, for the study of nervous diseases in the widest sense really means that psychiatric clinics can no longer be withheld. As a matter of fact, the common neuroses (hypochondria, hysteria, epilepsy, etc.) constitute in many cases the beginning of mental derangement, and are almost always accompanied by some psychical irregularities. This is of great importance to the young physician, and results in many and accurate investigations of surpassing interest, *e.g.*, the work of Westphal, Wernicke and Graskey. The favourable influence of these clinics on the treatment of diseases of the nervous system is certainly startling.

Clinical instruction on insanity was at first rigidly objected to in influential circles. Many reasons were urged against subjecting the insane to such investigations and explanations. It was said that "such a course was in opposition to the plan of salvation, and that motives of piety forbade such an appropriation." Injurious effects on the patients were regarded as inevitable, the students could not be expected to

preserve the necessary discretion, the "honour" of the families of patients would suffer, and paying patients would not seek admission to asylums so abused. These objections were very strongly stated, and had almost wrecked the establishment of clinical wards at Göttingen. Indeed, it was only after lengthened debates that King George effectually closed further discussion by ordering the building of the asylum as it now exists.

The experience of the twenty-five years, during which these clinics have existed in 18 out of the 20 German universities, shows no evil result to the patients; it has been even stated that the idea of "illness" has, in not a few cases, helped to recovery. The methods of teaching are those which have been approved in other branches of medical training—a single student is asked, under the guidance of the Professor, to detect the characteristic symptoms in a single patient, and afterwards to account for these symptoms from the standpoint of diagnosis, prognosis, and treatment. The patients are also visited in their rooms, after theoretical instruction elsewhere. With few exceptions, continuous systematic lectures on diseases of the brain accompany the clinical teaching. These are sometimes in elucidation of a case shown in the clinical wards; but more generally there is a discussion after each lecture on a group of patients, cursorily demonstrated by a visit to the wards. In addition to these, lectures on the medico-legal aspects of insanity are given, with expositions of cases and demonstrations of the anatomy of the brain, besides laboratory work.

The attendance must be regarded as satisfactory, and the work done shows that it is not perfunctory. But inasmuch as the subject is not yet compulsory throughout the German Empire, there is still room for improvement. In Bavaria (since 1858) and in Hanover (since 1866) every physician has been obliged to submit to examination in medico-psychological knowledge; and there is no reason to doubt that within a few years every German University will possess a clinic for the instruction of students, whose acquaintance with psychiatry will be tested by the State Examination.

When Professor Meyer opened the clinical wards at Göttingen the attendance was small, perhaps four or five students; but it has gradually increased till now there are from twenty to thirty out of two hundred undergraduates. The lectures are delivered twice a week, and each lasts two hours. The fee is one pound for each semester, there being

two semesters in the year. Besides the course for students of medicine, Professor Meyer gives one hour weekly to the medical jurisprudence of insanity to students of law. This is a noteworthy and pregnant project. There can be little doubt that such instruction in psychiatry is calculated to heal those perennial differences between law and medicine, and to bring into focus the divergent views of the two professions. Everyday experience of the protean forms of mental aberration in clinical wards will do more to promote the welfare of the insane and the good of the State than the slow evolution of justice as it dribbles through courts of law.

The feeling in Germany is strongly in favour of uniting the study of neurology and insanity in the same wards and the same lecture room. This, too, is one of the hopeful signs of the times: that the group of diseases we call insanity is not in the future to be differentiated in treatment and in teaching, but to be united as expressions of similar pathological significance—as affections of the nervous system. The establishment of clinics in the immediate vicinity of general hospitals is desiderated—Wards, where paralysis, traumatic neuroses, epilepsies, and so on are to be brought together for the purposes of investigation, explanation, and treatment. This new departure will assuredly be watched with critical eyes and absorbing interest. That there would be difficulties in practice in this country cannot be doubted. So many of the insane are segregated for social reasons, so many are opposed to restriction of personal liberty, and our legal bonds are so stifling to early treatment that the way does not yet seem clear. Professor Meyer is enthusiastic in believing that the time is at hand when he will have the direction of such an establishment in Göttingen, and points to Halle as an encouraging example of the best in Germany. He brushes aside apparent difficulties as imaginary and theoretical, and declares that ordinary asylum tactics are sufficient in any contingency. One asks how patients would regard such treatment—the effect on morbid minds being, as it were, entrapped into asylum surroundings after voluntary admission into hospital wards, but enthusiasm replies that psychoses and neuroses would improve under treatment, and that work at present remaining undone would be effectively undertaken.

On visiting the klinik of Professor Flechsig, at Leipsig, some years ago, I had great difficulty in ascertaining the exact terms on which many cases were received. There

seemed to be very few formalities, and the wards contained many cases of alcoholism and such neuroses as we do not look for in an ordinary asylum. The crowded and limited space there contrasted very unfavourably, in my mind, with the spacious grounds and homelike surroundings of the neighbouring asylum of Alt Scherbitz, of which so much has been written lately; but I believe that some sort of reception house, such as was long ago established in Sydney, N.S.W., or some such arrangement as at St. Anne, in Paris, is urgently required in each of the centres of our densest population. To attain the best results some less stringent legal provisions are, of course necessary. This subject offers a tempting opportunity for discussion, but an adequate development of so large a scheme cannot be incidentally and profitably sketched at this time.

Concurrently with this advanced school of teaching the higher psychiatry, it is remarkable that so little has been done in Germany in the scientific training of attendants. Professor Meyer has much to say regarding the principles which should actuate attendants; but he has not found, after some experience in bygone years, that lectures and clinical instruction of attendants have proved successful. He was diffident in speaking on the subject, saying that he possibly had not the gift of communicating the special kind of knowledge required by attendants; and that, therefore, the head attendants were charged with the duty of instructing their subordinates. He was, for instance, of opinion that years of observation and clinical experience sufficiently qualified attendants to give "first aid" to a case of fractured leg; and he prefers to remain inactive, while interested in what has been accomplished at the Silesia and Alt Scherbitz asylums, the only two institutions in Germany which have as yet taken up this work in a systematic manner. I cannot but think, however, that the field now lying untilled will soon be occupied by many and willing labourers.

(To be continued.)

Is American Insanity Increasing? A Study. By F. B. SANBORN, Esq., late Inspector, Massachusetts State Board of Health, Lunacy, and Charity.

I read, at the time of its publication in 1886, and again in 1890, after a visit to Dr. Tuke in London, his first paper on the "Alleged increase of insanity," and I await with much expectation the full text of his recent paper on the same topic. The conclusion that I draw from the statistics there presented (in 1886) is not exactly the same that my friend Dr. Tuke draws. I distrust very much the records of *first attacks*; so far as my observation goes—extended now over a period of 30 years, and many thousand cases of insanity whose certificates I have separately examined—there is nothing in the proverbially doubtful statistics of the insane more dubious than those affecting to give the date of a "first attack." Even for purposes of comparison, year by year, they have scarcely more value than a mixture of pounds sterling, years of our Lord, bushels of wheat, and a few other numbers jumbled together in an account, so totally varying are the judgments and the exactness of the certifiers who set down the alleged "first attack." Until these variances can in some way be reduced by the better observation of the asylum physician, I, for one, am inclined to leave the tabulation of "first attacks" where good sense has long left the asylum tables of "causes of insanity." One may possibly be as good as the other, but neither can throw any clear light on the real facts of insanity.

The statistics of all known countries, I think, that give figures of any value, report the existing number of the registered insane as much greater in each successive decade than the growth of the sane population would require, some countries even (like Ireland) reporting increased insane while the inhabitants have decreased. Formerly it was held, and with reason, that this accumulation of the insane was due partly to better care, by which life had been prolonged (as Dr. Tuke shows); partly to better observation, bringing cases to light that were overlooked; finally, to stricter classification of diseases, assigning wider limits to insanity. All these agencies may be allowed up to a certain point; but we long since reached that point in Massachusetts, probably, too, in England and Scotland; still we find this insane accumulation going on as fast as fifty years ago, and in the face of in-

fluences that ought to yield just the contrary result. How, then, can we account for it, save on the hypothesis that "occurring insanity" (new cases) is also increasing beyond the population ratio? This, I believe, is true, and will give some reasons for the belief.

Doubtless the insane die faster than the sane; hence they should relatively diminish just as a feeble race relatively decreases among a sturdier race. In northern climates like ours tropical races (the negro, for example) grow fewer, unless reinforced by constant immigration, in comparison with the acclimated and hardy Teuton or Celt. *Pro tanto*, even if they did not recover often the insane should decrease by virtue of a greater death rate, unless a constantly increasing number of fresh cases neutralizes the effect of speedier death. But if both the surviving insane and their deaths increase in number steadily (as with us they do), must there not be an increasing source of supply, viz., new cases?

If we found 20,000 negroes and Mulattoes in Massachusetts with a mortality twice as great as that of whites, and then found them grown to 30,000 in ten years, must we not infer newcomers from some source? I would suggest this argument, without insisting on it too far, in reasoning on the accumulation of the insane.

Now we have had for fifteen years in Massachusetts a reasonably exact registration of the insane, which shows the first admissions to *any hospital*, and also the number resident in all, the recoveries, death, and discharges without recovery. The tables of these and other statistics give the following (see Table on next page):—

During the years covered by this Table the population of Massachusetts increased from about 1,725,000 in 1879 to 2,500,000 in October, 1893; to be more exact, the gain by census was from 1,783,086 in 1880 to 2,238,943 in 1890. Thus, while the population only gained 45 per cent. in the years specified (or less), the strictly first admissions to *any hospital*—not merely to the one making the return—increased about 100 per cent.; and the deaths in all the hospitals and asylums of the State increased nearly 130 per cent. The resident insane in these establishments have increased about 94 per cent., or nearly doubled; while the unrecovered insane discharged or transferred each year have exceeded the recoveries and deaths put together, and fully account for the many recommitments in the whole period of the Table. Let me sum up the figures more clearly. In the Massachusetts

hospitals and asylums since October 1, 1878, when the State population was about 1,700,000, the resident insane have gone up from 2,836 to 5,488 on the same day in 1893, when the estimated population was not 2,500,000; that is to say, the insane have increased twice as fast as the whole people, including the insane.

TABLE OF FIRST ADMISSIONS, ETC., IN ALL MASSACHUSETTS.

Years.	Resident in Asylums, etc.	All Admissions.	First Admissions.	Re-coveries.	Deaths.	Discharged un-recovered.
1878	2,836 Oct. 1					
1879	3,017 „	1,084	849	282	253	577
1880	3,168 „	1,163	900	319	279	632
1881	3,287 „	1,267	949	307	297	722
1882	3,468 „	1,518	991	282	385	755
1883	3,657 „	1,545	1,078	316	374	736
1884	3,714 „	1,544	1,093	337	378	837
1885	3,862 „	1,471	1,131	365	357	755
1886	4,042 „	1,731	1,136	348	347	1,017
1887	4,276 „	2,030	1,242	357	376	1,133
1888	4,379 „	1,868	1,235	400	412	1,112
1889	4,690 „	1,884	1,360	421	408	934
1890	4,849 „	2,111	1,352	457	444	1,059
1891	5,075 „	2,246	1,501	501	443	1,167
1892	5,367 „	2,202	1,634	448	526	1,184
1893	5,488 „	2,312	1,617	459	579	1,231
Averages	4,074	1,725	1,205	373	391	923

Meantime the deaths of the insane have kept up with this increase of residents and first admissions, having risen from

253 in 1879 to 579 in 1893; the first admissions rising from 849 to 1,617 in this period; but the recoveries have not kept pace, being 282 in 1879, and only 459 last year. The recoveries and deaths together have in no year equalled the unrecovered discharges, the comparative figures being for the period:—Recovered and died, 11,457; discharged without recovery, 13,851, or nearly 2,400 in excess of removals from the list of insane by these two chief methods. A third method (emigration) has withdrawn some thousands of these unrecovered insane from Massachusetts; while in the 15 intervening years a few thousands have died, a few hundreds virtually recovered, and probably a thousand or two have gone back to die in the asylums, or are in the local asylums and poor-houses not included in the sources of the table. It is the presence in Massachusetts of these unrecovered insane that makes the steady accumulation of the chronic class possible, and, indeed, inevitable; while the strictly first admissions (nearly 18,000, or 1,200 a year) have prevented the deaths and recoveries from checking in the least the rapid increase of cases new and old.

There are slight errors in the table, no doubt, but in the main its results may be trusted. It has been compiled according to the forms arranged by the late Dr. Earle and myself long since, which have served to make the Massachusetts returns practically uniform since 1879. In that year the commitment laws were revised, and have remained substantially the same since, except that provision has been made for the commitment of dipsomaniacs and inebriates to a special asylum, opened in 1893. Slightly, but not materially, the first admissions have been swollen since 1886 by the few inebriates (not also insane) who were sent to insane asylums. Transfers are excluded from the table, and the original commitments have been certified, to a great extent, by the same ten or fifteen chief certifying physicians who began the work under the law of 1879, one eminent physician alone having made the certificates in, perhaps, one-fourth of all the cases for fifteen years past. Moreover, the task of compiling the returns yearly, under the direction of experts, has been done by one person since 1878, so that variations due to the "personal equation" are excluded; and this person had no theory to maintain, nor to refute. These conditions will be seen to give steadiness and credibility to inferences that may be legitimately made from statistics thus accurately gathered and impartially tabulated.

The insane life in Massachusetts, according to the returns since 1879, has not lengthened, as Dr. Tuke's hypothesis requires, but appears to have shortened, for the reported duration of insanity from the first attack, in the ten years 1880-89, was six years and a month in 2,858 persons who died; while in more than 1,500 deaths in the four years since it was less than 5½ years. I do not attach much importance to this calculation, seeing the uncertainty attaching to the term "first attack," still it may well be compared with the computation as to lengthened life given by Dr. Tuke. In the cases of recovery the insane period has lengthened since 1890, which, of course, would tend to increase the resident insane in some degree.

The death-rate in the establishments has varied, but, on the whole, is not much more or less than it was 15 years ago; but the constant numerical increase of deaths seems to prove that new cases of insanity are fast gaining, for otherwise this death-rate could not be kept up, but must fall after a time from lack of new subjects, it being well known here that new cases furnish proportionately more deaths than the chronic insane in a given time. The deaths since 1878 in these establishments have been considerably more than the whole resident number in the years 1879-80, so that, had not new cases come in about as fast as the deaths gained in number (that is, nearly 100 per cent.), the yearly death-rate must have fallen. It was a consideration of this view of the problem, no doubt, which lately led Dr. W. A. Gorton, of the Butler Hospital, in Rhode Island, to write me: "It is, after all, the number of *deaths* of insane persons, as compared with deaths occurring among the insane, that best and most conclusively proves whether or not insanity is increasing as a disabling and destroying force." Such seems to be its increase in Massachusetts, and, I doubt not, in most of the United States.

No State has for so many years so carefully collected the important statistics of insanity as Massachusetts, therefore I cannot demonstrate in the same way the increase of "occurring insanity" elsewhere; but of the general fact I have no doubt, inasmuch as the general conditions are everywhere much the same, and the accumulation of chronic insanity is even greater in some States than with us. The tables of the New York Lunacy Commission are so clumsily made up that it is impossible to draw exact conclusions therefrom; but certain facts appear amid the blunders and omissions there. Thus, in the city of New York, if I read

the tables aright, the first admissions were 1,206 in 1889, and 1,420 in 1892—an increase of 17 per cent. in four years; while the death-rate in the city asylums would indicate a much larger increase of new cases. For, in an average asylum population increasing from 4,835 in 1889 to 5,575 in 1892, the deaths and recoveries were 1,874 (deaths), and 815 (recoveries)—the deaths increasing from 193 in 1889 to 589 in 1892; while the recoveries were only 186, 273, 190, and 166 in the four successive years, at the end of which the resident population, which had been about 4,800 in October, 1888, had risen to 5,767 in October, 1892—a gain of 20 per cent. in four years, in spite of deaths amounting to nearly 40 per cent. of the population resident at the beginning of the period. Here the supply of new cases must have been enormous, unless the mortality was unnaturally great. And accordingly we find that 951 of the 1,874 deaths in four years were either in acute mania (233) or acute melancholia (316), or general paralysis (402)—forms of disease that imply cases mostly admitted within the four years' period.

These facts and inferences are submitted to the judgment of those experts who do not find that "occurring insanity" is fast gaining, as I am sure it is here. If any other interpretation can be put upon the figures given, nobody will be more pleased than the writer; but that seems to me hardly possible.

*Alleged Increase of Insanity.** By D. HACK TUKE, F.R.C.P.

I propose in the following article to state succinctly, and I trust fairly, the arguments and facts on the affirmative and negative sides of this question, confining myself to England and Wales, and endeavouring to determine on which side the greater weight of evidence lies.

Attention to this vitally important subject was drawn afresh in the early part of the year by Mr. Corbet in a forcible article in the "Fortnightly Review." The following pages are not, however, written for the purpose of controverting the conclusions at which he arrived.

Those who maintain that insanity is on the increase point out:—

That during the 20 years † succeeding 1870 the number of

* Paper read at the Psychology Section of the B. M. A., held at Newcastle, July, 1893.

† There are statistical reasons why, as regards England and Wales, the inquiry should not extend further back than 1870.

insane recognized by the Commissioners in Lunacy has risen enormously, not only absolutely, but after allowing for increase of population. As a consequence, during these years a large number of asylums have been opened, including the Metropolitan District Asylums, Banstead, Cane Hill, Whittingham, Wadsley, Menston, the Cheshire Asylum (Parkside), the Holloway Sanatorium, and quite recently Claybury. On the other hand, the number of asylums closed consists mainly of small private institutions, leaving a balance of increased building accommodation for at least 20,000. And all this apart from the enlargement of existing asylums, by which a large number of beds have been provided.

That the annual *admissions* of lunatics into asylums during the same period have also greatly risen, and that the increase of patients in asylums can no longer be accounted for on grounds given fairly enough some years ago, such as the accumulation arising from a greatly lower death-rate; the greater recognition of insanity with the public and even medical men; or, again, the quickened sense of the necessity of making proper provision for this class.

It is contended that potent as these causes may once have been, they have now lost their force; in short, that a comparison of statistics of 1890 and 1870 is not affected by considerations, which, no doubt, must be regarded when the comparison lies between 1870 and a number of years before—say 1850.

That the acknowledged causes of insanity have increased in power and frequency during recent years, and that consequently the number of the insane must have increased also, whatever statistics may say to the contrary; in fact, that insanity ought to have increased if it has not.

That some superintendents of asylums are convinced that a lower type of mental disease has developed in recent years, a degeneration indicated by a large increase in the proportion of general paralytics. Thus Mr. Rooke Ley (Prestwich Asylum), in reply to an inquiry, writes:—

“It is a fact patent to everyone connected with our Lancashire institutions that in the manufacturing districts of the county general paralysis has increased in frequency to a notable extent during the last 20 years. A generation ago the disease was rare among females; now it is common enough.” And yet I should add that Mr. Ley believes that “the slight increase in all forms of insanity in Lancashire

out of proportion to the population is mainly due to the fact that more use is now made of the asylums than formerly was the case."

That many patients are taken out of the asylums by their friends before they are well, and, no doubt, do what they can to increase the population. Dr. Claye Shaw writes to me that for this reason insanity is bound to increase, and he considers that the mischievous clause in the new Lunacy Act, which requires re-certification, leads to patients being discharged who are only convalescent, and brings about the above-mentioned evil. Yet Dr. Claye Shaw concludes by saying: "As far as we can judge from statistics an actual increase of lunacy beyond the rate of increase of population has not been proved."

Those who deny the alleged increase in insanity in England and Wales contend:—

That to compare the mere number of the insane of the present day with the number existing 20 years ago is altogether fallacious.

That so long as the discharges and deaths of patients from asylums are fewer than the admissions there must be, more or less, accumulation of chronic cases.

That the rate of mortality in asylums has not been, as alleged, stationary, but is distinctly lower than it was 20 years ago. Writing in 1889 Mr. Noel Humphreys, than whom there can be no higher authority, observes: "It is beyond question that the rate of mortality in asylums has declined."

That the recognition of insanity has progressively increased during even the last 20 years. That while it is true that some of the causes of insanity have multiplied and intensified in recent years, these are, to a certain extent, counter-balanced by conditions more favourable to mental health than obtained some years ago.

That there has been always a large mass of insane persons and idiots outside the range of registered lunacy, and that there has been, and still is, greater accuracy in registration, the necessary effect of which is to lessen the *reserve* lunacy and to increase the *registered* lunacy, and, therefore, to cause an apparent but not real increase of insanity. At the first census containing a return of the insane in England and Wales, viz., that of 1871, the returns amounted to 69,019 insane or idiots, being 12,264 in excess of those known to

the Commissioners in Lunacy, or nearly 18 per cent. of the total number in England and Wales; whereas in the course of 10 years the disproportion declined to 13 per cent. Again, in the last census (1891) the number of insane stands at 97,383, while the number recognized by the Lunacy Commissioners at the same date was 89,822, a difference of 7,561, or 7 per cent., the disproportion being still further reduced. This is due, in the opinion of Mr. Noel Humphreys, to the more complete registration of certified cases, and the consequent reduction of the unregistered cases. This he points out is confirmed by the fact that the rate of increase in the returns of the Commissioners is a declining one.

Again, those who deny that there is an increased liability to insanity point to the fact that the apparent increase has taken place among pauper lunatics. It is maintained that if advancing civilization and culture cause a larger proportion of insane persons to the population a greater number of the educated classes should become insane, not the poor and uneducated. Thus I find that during the five years 1888-92 the rise in the number of admissions of private patients into asylums in England and Wales has been at the rate of only 1 per cent., while the rise in the admissions of pauper patients into asylums has been at the rate of 12.5 per cent.

That there has been a very large exodus of patients from workhouses and the care of relatives to county asylums since 1870. Asylum superintendents are constantly remarking in their annual reports on this large relative proportion of workhouse cases during recent years. In 1885 24 per cent. of pauper lunatics were in workhouses, 9 per cent. with relatives and others, and 67 per cent. in asylums; whereas in 1892 21 per cent. were in workhouses, 7 per cent. were with relatives, while there were no less than 72 per cent. in asylums. It is most important to remember that this change in the distribution of pauper lunatics accounts for many admissions into asylums, and are not returned under the head of "transfers" by the Commissioners in Lunacy. The Commissioners in their 39th Report (1885), in commenting upon the ratio of admissions into asylums to the population, observe that the advance which has taken place during the previous year was due to local and exceptional conditions, particularly the admissions into the Lancashire asylums of an unusually large number of imbeciles long resident in workhouses, and, therefore, not fresh cases of insanity. The excess in the admissions due to this cause having been eliminated it was found

that the rate of fresh cases in 1883 came down to about the proportion which has prevailed since 1875. These figures, they add, tend to support the conclusion that "the large annual addition to the number of insane under care is almost entirely due to accumulation of chronic cases of the pauper class, so that the community at large would not appear more liable than formerly to an attack of insanity."

Lastly, the age-distribution of the insane as shown by the census is regarded as favouring the opinion that the apparent increase of insanity is due to "accumulation."

Having stated some, but not all, of the facts adduced in support of the rival opinions held in regard to the increase of insanity in this country, I proceed to give the statistics with which it is necessary to grapple before attempting to arrive at a conclusion on the question.

Let us first take the number of *certified* lunatics and idiots in asylums or in single charge in England and Wales during the years succeeding 1870, and ascertain the ratio of increase of the insane to the population.

In 1871 (January 1st) the total number amounted to 37,266, being a proportion of 16·35 to 10,000 of the estimated population, while on January 1st, 1893, the number had risen to 67,235, a proportion of 22·61 to the same number of the population. It is, however, fairer to take an average of the first five years of the period and compare it with the last quinquennium. Omitting decimals, we find 16 per 10,000 for the former, and 21 per 10,000 for the latter, being a rise of 31 per cent. in the number of certified lunatics in asylums during the term. In other words, to every 100 lunatics during the first quinquennium there were 131 in the last, allowing for increase of population (Table I.).

This has, no doubt, the appearance of a very alarming increase of mental disorder in England. But taken by themselves these figures prove nothing of the kind. They might be as large, without there having been any increase whatever in the liability to become insane. The various explanations already enumerated by those who deny this increased liability may fairly be applied to any enumeration of the number of the insane existing now, as compared with a former period. We may at once show how the single circumstance of the greater tendency to send patients to asylums, both on the part of their friends and on the part of guardians, may account for a large amount of this rise in

the number of certified lunatics. For this purpose we take the total number of lunatics in England and Wales, that is to say, not only in asylums, but in workhouses, and those institutions in the "Metropolitan District" which are placed in the same legal category. Now, making a similar comparison to that which we have made in the enumeration of certified lunatics, we find that during the first quinquennium after 1870, the proportion of the insane to 10,000 of the population averaged 25, while during the last five years it averaged fully 29, showing a rate of increase in the two periods of 16 per cent. (Table II.). No one who understands the bearing of these figures will deny that the difference between this percentage and the former one (31 per cent.) merely indicates the shifting of a mass of uncertified lunatics to asylums in which they are certified under the Lunacy Act. But it will be said there still remains the increase of 16 per cent. to explain away. Although it is difficult, and, indeed, impossible, to assign a numerical value to each proffered explanation, I hold that it is quite probable that most, if not all, of the 16 per cent. increase may be accounted for by the circumstances already mentioned, other than the transference of patients from workhouses to asylums.

One very important circumstance is the misleading effect of readmissions in swelling the population of our asylums. It is clear that had there been no relapses since 1870 (these clearly not being any indication or evidence of an increase of insanity) the number in asylums at the present time would be much fewer than it is. In fact, I find that instead of the number of certified lunatics in detention on January 1st, 1893, being 67,235, the number would really have been 61,105, if there had been no readmissions—a difference of 6,030.

Further, let us put the result of the lower death-rate to the test by calculating what has actually been its numerical effect in asylums since 1870. The death-rate in and for some years prior to 1870, calculated on the mean number resident, may be taken at 10.34 per cent. This rate might have been continued unaltered from that year to, say, 1890—twenty years after. But it did not, and the consequence was that 5,624 more patients were living than would have survived had the former death-rate been maintained. The significance of this may be forcibly shown by the fact that this is almost exactly the number of patients (5,699) in the Metropolitan District Asylums on January 1st,

1890; these asylums having been erected in 1870. Obviously, had the number of deaths occurred which would have taken place at the old rate, there would have been room in asylums for as many more admissions as would fill their places.

Then there is the explanation based on the effect of accumulation; one, however, which is merely begging the question as frequently used, for it is clear, on a moment's reflection, that an actual increase of insanity would itself cause accumulation. But the effect of accumulation in the following illustration is not due to this cause. Take, as an example, the Borough Asylum of Newcastle-on-Tyne from its opening in 1865 to the end of 1890. Assume that the annual admissions *had been exactly the same every year*, and, for convenience sake, say 100. On this number let us calculate the discharges and deaths *at the rate that actually occurred*. The patients who remain out of the admissions of the last two years cannot properly be regarded as belonging to the class of accumulated cases; but those remaining of any prior year's admissions may be fairly regarded as cases not likely to be discharged, except by death. Well, this number amounts to 302, or 12 per cent. of the admissions during the years named. Of the number remaining at the end of 1890 on this scheme, viz., 427, the accumulated cases are 70 per cent. Now, as a matter of fact, the number of patients resident in the Newcastle Asylum, at the end of 1890, was 400. Treating the figures on the same principle, we find that no fewer than 270 represent the accumulated cases in the asylum at that date, being about the same percentage as that given hypothetically, due to what I may call the accumulation of chronicity. It is an instructive fact that of these 270 patients one quarter of the first year's admissions (29) were still living in the asylum at the close of 1890.

The fallacies which thus confessedly attach to all returns of existing insanity can only be avoided by ascertaining the relative amount of *occurring* insanity at the different periods under review, but this, unhappily, we are unable to ascertain with the necessary degree of accuracy. Some years ago I prepared a table showing the admissions of patients into asylums labouring under *first* attacks of insanity, but, I am unable to supply this information during the term of years we are now considering, because the Lunacy Blue Books did not make these returns so long ago as 1870, and because

I have now reason to believe that the returns which have been since published cannot be trusted. This is greatly to be regretted, because the very thing we want to arrive at in this inquiry is the number of fresh cases occurring year by year. The nearest approach to this knowledge is the *admissions* of patients during the first and last quinquennial periods of the years succeeding 1870, *minus* transfers and readmissions, that is to say, *first admissions*. It must, however, be borne in mind that this expression does not mean that the patient was admitted for the first time into any asylum whatever, but merely into the asylum in regard to which the return is made. He might have been in several institutions before and recovered. Again, it is a most unfortunate circumstance that these returns do not include admissions into workhouses or the number who have become for the first time outdoor insane paupers. The returns of first admissions apply, therefore, exclusively to lunatics certified under the Lunacy Act.

Taking these returns for what they are worth as the nearest approximation to the amount of occurring insanity, we find the proportion to be 4 per 10,000 of the population during the first five years (1871-5 inclusive) and nearly 5 per 10,000 during the last (1888-92 inclusive); this being a rise at the rate of 14 per cent. There can be no doubt that this figure is a better test of the alleged increase of insanity than the percentages already given, calculated on the number in detention at the corresponding periods, whether in asylums only or in asylums and workhouses (Table III).

In explaining the rise in admissions into asylums, it is obvious that the same reason which was given for the increase in the number of patients under asylum care fairly applies here, that is to say, there has been a larger proportion of patients sent to asylums than to workhouses. I think there is great force in the observations made by the Lunacy Commissioners in their Report of 1893, that "the confidence which the public has learnt to place in the management of asylums has no doubt conduced to the placing in them of many persons above the status of paupers, their relatives reimbursing the Guardians the cost of their maintenance."

One aspect of this question, and a very important one, is the *age-distribution* of the insane. In a paper read before

the Royal Statistical Society of London in 1890 Mr. Noel Humphreys drew attention to its bearing on the alleged increase of insanity in a very able manner. Since the last Census was issued the subject has been treated on the same lines in the "British Medical Journal."* What the Census return showed is this: that at all ages under 45 the number of insane was less in 1881 than in 1871, and in 1891 than in 1881. Thus, of 1,000 insane persons of all ages, 594 were in 1871 under 45 years of age, and in 1881 the corresponding number was 571, while in 1891 the number was as low as 545.

Concurrently, at all ages above 45 the proportion was higher in 1881 than in 1871, and higher in 1891 than in 1881. Thus of 1,000 insane persons living at the time of the first Census 406 were above the age of 45, at the second Census the number was 429, and at the last Census the number had risen to 455. This is attributed, I think fairly, to the effect of accumulation. The proportion of the insane to the population at certain age-periods is important, for, as pointed out, the declining birth-rate in this country causes a considerable change in the proportional age distribution of the general population. Without entering into details, it may be stated that there was a marked decline in the ratio of the insane to the general population in England and Wales under 25 years, while between that age and 45 the increase was very small. All asylum statistics show, as might be expected, a great liability to insanity during these twenty-five years of man's life, and assuming, as we are bound to do, unless disproved, that Mr. Humphreys' statistics are reliable, the evidence adduced in favour of a large increase of occurring insanity is greatly weakened. Taking all ages under 45 it appears that the ratio of the insane to the population was in 1871, 2·24 per 1,000; in 1881, 2·29; and in 1891, 2·26; showing that there was practically no increase in the ratio between the 20 years, 1871-91. When, however, the ratio of the insane to the population *above* 45 years is taken, a very different state of things is exhibited, for in 1871 the ratio was 6·35, in 1881 it was 7·40, while in 1891 it was as high as 8·02.† Hence the inference appears

* September 2nd and 9th, 1893.

† Dr. Rayner, in a paper on "The Alleged Increase of Insanity," contributed to the "British Medical Journal," since the reading of this paper at Newcastle, has endorsed the opinion that the increase of insanity is only an

to be allowable that as the increased ratio between 1871 and 1891 is traced to the period of life above 45, the principal cause, at any rate, is the accumulation of chronic cases.

The explanation offered to account for the alleged increase of insanity, namely, that as many cases have under the influence of the Capitation Grant been sent to asylums instead of to workhouses a vast number who would not have been labelled "insane" in the latter would, of course, when placed in an asylum be returned as lunatics, and swell the numbers registered by the Commissioners in Lunacy, has certainly great force.

It is observed in the "General Report of the Census" (1891), issued at the close of 1893 by the Registrar-General and the Statistical Superintendent (Dr. W. Ogle), the ratio of *recoveries* must be taken into account as well as the death-rate. The two combined constitute the discharge rate. This averaged 19 per cent. annually from 1871-80, while it was only 17·8 during the years 1881-90. It is maintained that these figures suffice to account for the increase in living lunatics. "With an annual discharge-rate of 19 per cent. of lunatics living at the beginning of the year, it would require an addition each year of 6,889 fresh cases per million population, spread evenly over the year, to raise the ratios of living lunatics from 3,034 per million, as it was in 1871, to 3,253 per million, as it was in 1881; but to raise the ratio from this level of 3,253 to 3,358, ten years later, as it stood in 1891, would require, with a discharge-rate of 17·83 per cent., an annual addition of only 661 new cases per million population. The returns, then, if correct, or if equally incorrect, on the two successive decennia, so far from showing that lunacy, as measured by the proportion of new cases annually occurring in the population, is on the increase, show the contrary, and lead to the conclusion that there has been a slight decline. For the average annual new cases in 1871-81 must have been 689 per million persons

apparent one. "Personal experience and the Annual Reports of the Asylum Superintendents confirm the opinion that the undoubted increase of senile admissions is due rather to the increased certifications of dotards and paralyzed persons not previously classed as insane than to increase of disease." It may be added that his ultimate conclusion is "that the evidence at present available admits of the interpretation that there is no real excess in the amount of occurring insanity, but is ever compatible with the possibility of an absolute diminution."

living, or one fresh case of insanity yearly, to 1,451 persons, while in 1881-91 the proportion must have been only 661, or one fresh case of insanity each year to 1,513 persons."

It is, of course, assumed that the discharge-rate among all lunatics has been the same as among those falling under the jurisdiction of the Commissioners. Whether so or not the error would not be very important, seeing that the latter constitutes 90 per cent. of the total number.

The medical superintendent of the Middlesex County Asylum at Wandsworth (Dr. Gardiner Hill), in his Report for 1892, in speaking of the number of Middlesex cases requiring asylum treatment, observes: "The increase is probably more apparent than real, and does not correctly determine the increased proportion of insane to the sane in the county of Middlesex. For in addition to the growth of the population of the county, there are other points that must be inquired into in solving the vexed question, 'Is insanity on the increase?' For instance, accumulation in the asylum has been taking place owing to a low death-rate (the average for the last four years is 7.6 on the average number resident), and to the fact that more senile, idiot, and paralyzed cases are now admitted than formerly, when, on account of the insufficiency of accommodation in the old Middlesex Asylums, these cases were kept at home or in the Unions."

Mr. Whitcombe, in his Report of the Birmingham City Asylum for 1892, observes: "If the statistics of this asylum be carefully noted it will be observed that the admissions, the numbers remaining at the end of each year, and the average resident population have steadily increased since the asylum was opened. This increase appears to be the normal one from increase of population and accumulation of chronic cases, and does not, I believe, point to any alarming increase in the ratio to population of new cases."

In conclusion I may summarize the principal points elicited by this inquiry as follows:—

There has undoubtedly been since 1870 a large increase in the number of patients in asylums and workhouses, but proportionately more in the former than in the latter.

There has not been so great, but still a considerable rise, in the *admissions* of patients into asylums during

the same periods, after deducting transfers and readmissions.

The advance in the number in detention, although it holds good after allowing for the increase in population, does not prove the increased liability of the community to insanity, seeing the vast accumulation due to a lower death-rate (even since 1870), the chronicity of the disease, and the lamentable tendency to relapse.

The advance in admissions again does not prove increased liability to insanity, as (a) the value and comfort of asylums are increasingly appreciated, (b) there has been a very large number of patients drafted from workhouses to asylums, and (c) there has been an ever-increasing encroachment on the mass of unregistered lunacy which the Census shows to exist.

The increase in the number of the insane has taken place among the poorer classes of society.

The increase in the ratio of the insane during the twenty years between 1871 and 1891 has taken place in persons above the age of 45, the significance of which lies in the accumulation of chronic cases. On the other hand, there has been a decline during this period in the proportion of cases of mental weakness under 25 years of age to the population at the same term of life—a most important circumstance.

The age-distribution of the insane favours, therefore, the conclusion that the increase of insanity is apparent rather than real, being mainly due to accumulation.

That, considerable as has been the increase in the number of the insane as returned in the censuses of 1871, 1881, and 1891, the ratio of increase has been a declining one, for although the rise in the ratio to the population was 7·04 per cent. during the decade 1871-81, it was only 3·23 per cent. in that of 1881-91.

If these results are on the whole reassuring, they are, it must be admitted, nothing to boast of. I say nothing to boast of, because twenty years of social progress and the advance of medical knowledge ought to have materially lessened the proportion of the insane to the population. The lesson to carry away from a study of the foregoing statistics is not one of congratulation, but the necessity for making more earnest and definite attempts to diminish the causes of insanity, and to discourage, by every possible

means, the extension of the disease by the marriage of individuals of insane stock or who have been themselves deranged in mind, impracticable as I believe it to be to obtain this object by legislation.

In the discussion which followed the reading of this paper Dr. J. A. Campbell (Garlands Asylum) laid great stress upon the effect of the 4s. Capitation Grant given in 1874 to patients in pauper asylums, but withheld from lunatics in workhouses. To this he attributed much of the apparent increase of insanity during the last twenty years, quoting Dr. Maudsley's statement in 1877 that "the Conservative Government had practically offered a premium to parochial authorities for every patient they could, by hook or crook, send into asylums," and adding that his forecast that the number of pauper lunatics would apparently vastly increase had been verified. Dr. Campbell also adduced the fact that senile cases (dotage) were now sent in much larger numbers to asylums. At the Carlisle Asylum 2 per cent. of the admissions during the decade ending 1872 were above 70 years of age; 4 per cent. during the next decade; and 6 per cent. during the decade ending 1892. Again, Cumberland was flooded at times by uneducated Irishmen unaccustomed to high wages, who had not the sense to use their money wisely. In the same discussion Dr. Howden (supported by Dr. Yellowlees) attributed part of the apparent increase of insanity to the change which had taken place in the nature of employment of the working classes. Half a century ago hand-loom weaving and small farms or crops permitted the relatives to attend to their weak-minded relatives while pursuing their occupations at home, whereas, when they had to work at spinning mills, or as servants on large farms, they were compelled to send the insane or imbecile members of their families to asylums. This change, he added, was still going on. Although the speaker referred to Scotland, his remarks applied to some extent to England and Wales. Dr. Merson maintained that the increase in the admission rate was fully accounted for by the operation of the Lunacy Laws, the energetic action on the part of the authorities, and the accumulation of chronic cases in asylums. ("Journal Mental Science," October 25th, 1893.)

TABLE 1.—Showing the Number of Certified Lunatics and Idiots in Lunatic Asylums or Confined as Single Patients in England and Wales, during each of the 23 years 1871-93, and the Rate of Increase, allowing for increase of Population.

Year.	Total Number of Cer- tified Lunatics on 1st January.	Proportion to 10,000 of the Estimated Population.	Proportion per 10,000 of the Population in various groups of years.	Rate of increase in last over first quinquennium (per cent.).
1871	37,266	16.357	16.698	31.6
1872	37,592	16.296		
1873	38,883	16.220		
1874	40,170	16.986	17.355	
1875	41,558	17.355		
1876	42,880	17.687		
1877	44,286	17.930	18.342	
1878	46,059	18.399		
1879	47,650	18.781		
1880	48,747	18.957	19.591	
1881	50,173	19.252		
1882	51,753	19.593		
1883	53,180	19.865	19.921	
1884	55,072	20.297		
1885	56,525	20.555		
1886	57,090	20.743	20.735	
1887	57,701	20.735		
1888	59,181	20.977		
1889	60,901	21.407	21.119*	
1890	62,431	21.706		
1891	63,992	22.004		
1892	65,244	22.189	21.985	
1893	67,235	22.618		

* Taking 20 years only, the rate of increase in last over first quinquennium was 26-4 per cent.

TABLE II.—Showing the Total Number of Lunatics and Idiots in England and Wales on Jan. 1st, 1871, and subsequent years, and the Rate of Increase, after allowing for Increase of Population.

Year.	Total Number of Lunatics on 1st Jan.	Proportion to 10,000 of the Estimated Population.	Proportion per 10,000 of the Population in various groups of years.	Rate of increase in last over first quinquennium (per cent.).
1871	56,755	24·911	25·756	16·23
1872	58,640	25·421		
1873	60,296	25·815		
1874	62,027	26·229		
1875	63,793	26·642	25·2	
1876	64,916	26·776		
1877	66,636	26·979		
1878	68,538	27·379		
1879	69,885	27·545	28·738	
1880	71,191	27·685		
1881	73,113	28·071		
1882	74,842	28·419		
1883	76,765	28·830	29·412	
1884	78,528	29·089		
1885	79,704	29·281		
1886	80,156	29·125		
1887	80,891	29·069	29·973	
1888	82,643	29·293		
1889	84,340	29·648		
1890	85,067	29·924		
1891	86,795	29·846	29·877	
1892	87,848	29·877		
1893	89,822	30·210		

TABLE III.—Showing the Admissions of Certified Lunatics and Idiots, *less Transfers* and Readmissions*, into Asylums and Single Houses in England and Wales during each of the 22 years 1871-92, and the Rate of Increase, after allowing for increase of Population

Year.	Admissions of Certified Lunatics, less Transfers and Re admissions.	Proportion per 10,000 of the Estimated Population.	Proportion per 10,000 of the Population in various groups of years.	Rate of increase in last over first quinquennium (per cent.).
1871	9,267	4.067	4.294	14.2
1872	9,412	4.075		
1873	9,942	4.247		
1874	10,619	4.476		
1875	11,023	4.585	4.613	
1876	11,404	4.680		
1877	11,428	4.627		
1878	11,844	4.731		
1879	11,480	4.525	4.456	
1880	11,596	4.570		
1881	11,821	4.538		
1882	11,871	4.508		
1883	12,767	4.795	4.596	
1884	12,539	4.645		
1885	11,578	4.253		
1886	11,765	4.275		
1887	12,362	4.442	4.905	
1888	12,937	4.586		
1889	13,318	4.682		
1890	14,360	4.993		
1891	14,764	5.077	5.118	
1892	15,051	5.118		

* Exclusive of removals from Workhouses to Asylums, which are not given in the Blue Books (see back pp. 222 and 226).

CLINICAL NOTES AND CASES.

The Insanity of the Climacteric Period. By Drs. E. GOODALL and M. CRAIG, West Riding Asylum, Wakefield.

Although much of a speculative kind appears to have been written upon the subject of climacteric insanity, more especially as regards the pathology of the disorder, the accumulation of actual facts, bearing upon its genesis, symptomatology, and terminations is comparatively small. Exception must be made for the highly practical paper lately read by Dr. Savage at the Medical Society. A further contribution dealing as far as possible with matters of observation may be serviceable. For the purpose of this paper, in addition to the cases coming under the direct observation of the writers, the records of Bethlem (10 years, 102 cases) and the West Riding Asylum, Wakefield (10 years, 120 cases) have been drawn upon. We are indebted to Dr. Salter, Clinical Assistant, Bethlem Hospital, for much assistance in collecting the cases, and Dr. Percy Smith for permission to use the records of Bethlem.

Age.—In the first place insanity in women appears at a later period of life than men (excluding G.P.I.). This period is fixed by Tilt at from 40-60. Clearly, therefore, a large proportion of the insanity of women occurs during the climacteric years. This statement is seen to be the more accurate when we extend our observations to other countries. The menopause in some countries may from climatic or racial conditions be deferred to so late a date that the climacteric years become almost co-extensive with the periods in which insanity preponderates in women. A review of the statistics shows that even in this country the climacteric years cannot be stated with precision; for this there are many reasons, the insidiousness of the onset, mode of life, the lack of observation (on the part of women) dependent on apathy and ignorance, etc. From 43-51 appears a fair computation. Average age of Bethlem cases is 46·77; West Riding Asylum 47·5.

Forms of Insanity.—The question of the prevalent form of disorder is soon dismissed, since all writers are agreed that *melancholia* is exhibited far more frequently than any other variety of insanity. Krafft-Ebing is a notable exception, since he gives amongst 60 cases 36 of paranoia (ideas of persecution) and only four of melancholia. *Mania*, in its sub-acute form, and *delusional insanity*, though less common

than states of depression, are by no means rare. Whether a case shall be classed with delusional insanity or with the affective disorders depends much upon the observer's conception of the term "paranoia." If this is comprehensive the proportion of delusional cases will probably be large. Whatever its form, it may be stated that in degree the disorder is commonly sub-acute. *Primary dementia* is decidedly rare.

The percentage of *general paralysis of the insane* given below agrees very nearly with Matusch* (3.5 per cent). Krafft-Ebing, however, gives the proportion of 20 per cent.

Bethlem (102 Cases).				
Melancholic.	Mania.	Delusional.	Weak-mindedness.	G. P.
68.6 per cent.	15.6 per cent.	9.8 per cent.	2.9 per cent.	2.9 per cent.
70 cases.	16 cases.	10 cases.	3 cases.	3 cases.

W. R. A., Wakefield (120 Cases).				
Melancholic.	Mania.	Delusional.	Weak-mindedness.	G. P.
63.3 per cent.	18.3 per cent.	14.1 per cent.	1.7 per cent.	1.7 per cent.
76 cases.	22 cases.	17 cases.	2 cases.	2 cases.

Prodromata.—The mental alteration and the somatic disturbances frequently exhibited by the healthy woman at the menopause may be the prodromata of actual insanity. They are therefore of grave import in the presence of an insane heredity. In estimating their value the practitioner will do well to give due weight to this factor. The chief mental disturbances are:—Insomnia, alteration in temper, neuroses, noises in the ears and deafness; hallucinations of the various senses; suspicions, jealousies, false accusations; failure of attention, impairment of memory; sexual perversions (eroticism, frigidity, masturbation, etc). Amongst somatic disorders those referable to the vascular system are prominent, viz., general flushings, congestion of the head, and giddiness; in addition gastro-intestinal disturbances are

* Der Einfluss des climacterium auf Entstehung u. Form der Geistesstörungen: "Allgem. Zeitschr. . Psych.," xlv. B., 4 H.

common, also paræsthesiæ. The growth of hair on the face which has been remarked at this period is noteworthy in association with the disappearance of the reproductive function. The vagaries of the menstrual function at this epoch are well known, *e.g.*, gradual cessation, with irregularities in quantity and periodicity, sudden cessation. The proneness to alcoholism at the menopause deserves special notice. Drunkenness in women in England and Wales has been shown to be more common at this period than any other. Habits other than alcoholic are also easily acquired at this time, which is one of exaggerated "suggestibility" in regard to drugs generally (morphia, cocaine, and the like). These, therefore, should be recommended with the utmost caution. Medical men are often blamed, and not altogether with injustice, for habits so formed.

Symptoms.—These are mainly a continuation and elaboration of the prodromata, and are frequently remarkable for their diversity.

Hallucinations.—Most writers are agreed that those of hearing are the commonest. Krafft-Ebing, however, places those of smell first. Next in order come hallucinations of sight; less frequent are those of taste, smell, and common sensation. Various authors have affirmed an association between olfactory hallucinations (which, according to them, are relatively frequent in climacteric insanity) and ovarian disease. Matusch, though finding hallucinations of smell rare at this period, states that when present they were connected with uterine trouble and sexual craving. This writer, however, finds that such hallucinations are more common in young women. If the association between these hallucinations and ovarian disease really exist, the inference would be that olfactory hallucinations are mainly dependent on disorders of the active florid ovary, and in a minor degree upon mere atrophic changes in that organ. In view of the dangers of a *priori* assumption it is desirable that the evidence of ovarian disease should be as clear as possible.

Bethlem.

Of the 102 cases, 71 had hallucinations of one or more senses = 69·6 per cent.
No hallucinations in 30·4 per cent.

Of the 71 that had hallucinations—

49	had hallucinations of hearing	= 69 per cent.
40	" "	sight = 56·3 per cent.
25	" "	common sensation = 35·2 per cent.
22	" "	taste = 31·4 per cent.
19	" "	smell = 26·7 per cent.

W. R. A., Wakefield.

Of the 120 cases, 81 had hallucinations of one or more senses = 67·5 per cent.

No hallucinations in 32·5 per cent.

Of the 81 that had hallucinations—

40	had hallucinations of hearing	= 49·3 per cent.
19	" "	sight = 23·4 per cent.
22	" "	common sensation = 27·1 per cent.
16	" "	taste = 19·7 per cent.
9	" "	smell = 11·1 per cent.

Other symptoms are gastro-intestinal disturbances (indigestion, constipation), with delusions of poisoning based thereon; abdominal sensations leading to ideas of pregnancy; anomalous cutaneous sensations (burning, flushing, itching), forming the basis of delusions of electricity and the like. Head sensations, especially "pressure," are common. Ideas of filth (with consequent self-seclusion), of decay and bodily change; delusions of persecution; altered family feelings, with hostility; moral perversion leading to deceit and false accusations (especially of indecent character); eroticism, religious enthusiasm and religiosity; insomnia, and refusal of food.

Suicide.—Experience of observers in all countries goes to show that suicide in women is most common between the ages of 40-50. The tendency to self-injury is a prominent feature at this period.

Bethlem.

44 cases out of 102 were suicidal = 43·1 per cent.

W. R. A., Wakefield.

54 cases out of 120 were suicidal = 45·2 per cent.

Prognosis should be divided into (a) immediate, (b) ultimate, and depends upon various factors, of which the following are prominent: Heredity, previous attacks, exciting cause, early treatment, form of insanity, physical condition of the patient. When heredity is a marked feature remission and temporary recoveries are not uncommon, but the ultimate prognosis is unfavourable. The greater the number of previous attacks the more serious the prognosis, whether immediate or ultimate. With a definite and removable exciting cause the prognosis may be set down as better than in the reverse case.

Particularly where alcohol is the exciting and removable cause (care being taken to discriminate between cause and early symptoms) the outlook is favourable, provided there are no organized delusions. The importance of early treatment, using the term in a wide sense, is evident. The prognosis will be more favourable in the affective than the delusional

types of insanity. In estimating the influence of physical states it is necessary to determine whether a deterioration in health is functional or organic in origin. Mere functional derangements, when not excessive, allow a favourable prognosis, whereas when organic disease, such as cardio-vascular and renal, are present the forecast must of necessity be gloomy. It is obvious that a combination of the conditions specified may be present in any given case, under which circumstances the above prognosis would require modification.

Duration of the disorder in cases treated in asylums may be set down from 9 to 18 months, many getting well within the year. Of the cases collected in Wakefield Asylum the average duration of insanity in those discharged recovered was $10\frac{1}{2}$ months.

Terminations.—Cases may be classed as recovered, relieved, uncured (including chronic insanity and premature senility), died. In addition there are exceptional cases which may be described as temporarily cured—we refer to instances of circular insanity. In estimating the statistics of the recovery rate the personal equation of the compiler must be taken into consideration. In most quarters there is a natural desire to swell the recovery rate, so that not infrequently cases are reckoned as recoveries which are merely relieved or in remission—a state not uncommon in climacteric insanity. Although the return of last-mentioned patients should take place within a few days of discharge, thus rendering it evident that the condition was one merely of remission, the recovery already claimed would not be cancelled. The variation in the statistics and the large recovery rate, quoted by some writers, seem to justify the preceding observations. The following were the terminations in the cases collected. With respect to the Bethlem cases it must be borne in mind that patients are discharged from that institution at the termination of a year. This in a measure accounts for the large proportion of uncured cases.

<i>Bethlem (102 Cases).</i>			
Recovered.	Uncured.	Relieved.	Deaths.
35.29 per cent.	50 per cent.	8.8 per cent.	3.9 per cent.
36 cases.	51 cases.	9 cases.	4 cases.

W. R. A., Wakefeld (120 Cases).			
Recovered.	Uncured.	Relieved.	Deaths.
40·8 per cent.	34·1 per cent.	11·6 per cent.	13·4 per cent.
49 cases.	41 cases.	14 cases.	16 cases.

Treatment.—When symptoms, which may be prodromata of insanity, appear at the climacteric period in patients with heredity, or a history of a previous attack, prophylaxis of a general kind may be adopted, such as rest, change of environment, Weir-Mitchell treatment (in neurasthenic cases), and ordinary hygienic measures. At this time women not infrequently consult medical men for obscure symptoms referred to the uterus and appendages, and receive local treatment for conditions more or less vague, and it would seem of a minor nature. Such measures are to be deprecated, as they tend to an undesirable self-concentration, and finally convert the patient into an hypochondriacal invalid. In view of the profound changes undergone by the organism at this stage of life, it appears highly unphilosophical to refer the associated mental disturbance to a mere flexion of the uterus or erosion of the os. Where actual insanity is present, in a large majority of cases it is highly desirable that the patient should be placed with as little delay as possible under asylum *régime*. Although home treatment, change, etc., have their value in the earlier stages of the disorder, an undue persistence in these measures involves a risk of chronicity. Obviously an individual, whose insanity is characterized (as is frequently the case in this disorder) by suspicions, jealousy, and the like, is best treated away from her ordinary environment. The treatment adopted must be on general lines. It may be noted that in climacteric psychoses (as also in puerperal) cases which, having improved to a certain point, appear to be stagnating, are stimulated to recovery by early removal home.

Previous Attacks.—In only a small minority of cases is there a history of previous attacks, and the statement is borne out by the undermentioned figures. When there is a history of previous attacks not unfrequently the first attack

occurred at puberty, a fact also brought out by Matusch's statistics :—

Bethlem (102 Cases).

79 cases were first attacks	...	...	...	77.4 per cent.
23 cases had had previous attacks	...	...	...	22.6 „

W. R. A., Wakefield (120 Cases).

100 cases were first attacks	...	...	...	83.4 per cent.
20 cases had had previous attacks	...	...	...	16.6 „

Heredity.—The figures quoted below, which sufficiently emphasize the importance of the hereditary factor, are derived from the cases observed at Bethlem, owing to the impossibility of obtaining reliable information from the relatives of patients in county asylums in the majority of instances. Out of the 102 cases under treatment during the last ten years heredity of insanity was present in 57, giving a percentage of 55.8. Matusch, in his monograph (probably the most complete of recent times), gives the proportion of 54.9 per cent. (heredity from father's side, 35 per cent.; heredity from mother's side, 54 per cent.). Apart from history of insanity, in reading over the cases at Wakefield one is struck by the frequency of alcoholic intemperance in the parents. In accordance with his theory of the pathology of the disorder, to be referred to presently, Matusch explains the influence of heredity on the supposition that there is transmitted an asthenia of the vaso-motor system, predisposing to chlorosis and cardio-vascular degeneration.

Civil State.—The proportion of married to single women was as follows :—

Bethlem (102 Cases).

59 Married (including a few Widows)	...	...	...	57.9 per cent.
43 Single	...	...	...	42.1 „

W. R. A., Wakefield (120 Cases).

94 Married	...	...	...	78.5 „
26 Single	...	...	...	21.5 „

Influence of the Climacterium on Existing Psychoses.—Experience does not justify the hope that improvement, much less cure, will occur in an existing psychosis at the climacteric. In the majority of cases the condition remains unaltered or undergoes positive deterioration. The figures given by Matusch would seem to be the best on this point, and are as follows: Out of 60 cases 13 showed improvement in the existing psychosis, 14 a deterioration, while 33 remained unaltered.

Pathology.—There is no record in the writers' experience

of a post-mortem examination of the brain in a case of climacteric insanity (uncomplicated by disease) dying from injury, self-inflicted or otherwise. Only in such a case would the pathological results be of value, since where there is intercurrent disorder (as phthisis) they must of necessity be vitiated. Thus in estimating the importance of any cerebral anæmia or hyperæmia due weight must be given to any existing pulmonary or cardiac disorder. As in most forms of insanity the pathology is altogether speculative. Theories on this subject, without basis, in which the vascular system especially plays a prominent part have been advanced from time to time. Thus Matusch states that the "vaso-motor system is at fault and gives out soonest." Such a statement appears altogether meaningless. The author himself evidently feels the want of a more tangible pathology, since he speaks of an early atheroma of the blood vessels as being present in this form of insanity. It may here be mentioned in passing that Schüle ascribes the aural hallucinations commonly present to local atheroma of the blood vessels, an explanation hypothetical and improbable, considering that not infrequently such disturbances are transitory. Krafft-Ebing and others are clearly of opinion that senile brain changes take place in climacteric insanity, since they regard the disorder as a premature senility. This view and the statement concerning the pathological importance of atheroma are incompatible with the recovery rate. Unfortunately it must be admitted that it is impossible with our present knowledge to trace a pathological connection between the known conditions, namely, the change in the reproductive organs and the mental disorder.

OCCASIONAL NOTES OF THE QUARTER.

Census of England and Wales, 1891.

The "General Report, with Summary Tables and Appendices," only came into our hands at the close of 1893. In the following very brief *résumé* of the section devoted to the insane we have omitted the reference to the alleged increase of insanity, as it has already been dealt with at p. 228. Sex, distribution, and age, however, remain.

As to sex, of the 97,388 lunatics 45,392 were males and 51,991 females, or 3,230 men per million living and 3,478 women to the same number of the population. But while it

cannot be denied that in the sense that out of equal numbers living of each sex there are more insane females than males, it does not follow that women are more liable to insanity than men. It might be explained by the discharge-rate of males being higher than that of females. Now, it is shown by the Reports of the Commissioners that the proportion of male lunatics discharged by death or recovery during 1881-90 averaged 18·91 per cent. of those living, while the discharge-rate for women was only 16·91.

The results are thus stated:—"The rise of the male lunatic rate from 3,148 per million living, as it was in 1881, to 3,230, as it stood in 1891, implies an average annual addition of 677 new male cases per million living; while the annual quota required to raise the annual female lunatic-rate from 3,353 in 1881 to 3,478 in 1891 was no more than 646 per million living, or, in other words, that for equal numbers living the occurrence of lunacy is nearly 5 per cent. more common in the male than in the female sex."

Hence the greater number of female lunatics is merely due to accumulation, for they either die or recover less rapidly than the other sex. This agrees with the fact that it is only in the later age-periods that the proportion of insane women exceeds that of men—the reverse holding good at each age up to 35. The excess of males at earlier ages is due to the greater frequency of congenital idiocy among boys than girls.

With regard to the *distribution* of the above total number of insane, 80,068, or 82 per cent., were in public or private asylums or other institutions, the remainder, 17,315, or 18 per cent., being under family care. There is a larger proportion of females confined in institutions, due to various causes, one being that there is a higher proportion of children among males (idiocy from birth, etc.).

	Public Lunatic Asylums.	Workhouses. Workhouse Infirmaries.	Private Lunatic Asylums (Licensed Houses).	Others.	All.
Persons	607	168	47	178	1000
Males ...	598	163	44	195	1000
Females	615	173	50	162	1000

Under Public Lunatic Asylums are included those for idiots, and the Broadmoor Criminal Asylum. Under Workhouses the Metropolitan Asylums for Idiots and Imbeciles are included. All persons mentally deranged not comprised under the above three headings are relegated to the column headed "others."

With regard to *age-periods* the following table shows the number of the insane at successive decades per million of corresponding ages and sexes, 1891, in the general population of England and Wales :—

Ages.	Males.	Females.
All ages	3250	3478
0	88	82
5	614	444
10	1106	806
15	1926	1385
20	2728	2089
25	4060	3761
35	5719	6022
45	6870	8053
55	7580	9060
65	7669	9454
75	6792	9786
85 and over	6781	9635

The Lewisham Workhouse Inquiry.

It seems as if the troubles produced by certifying were taking a new line, and parish officers, who hitherto have not been troubled much in exercising their medical discretion as to persons of unsound mind, are going to have their turn of worry. The medical officers of workhouses have no interest in signing certificates for the removal of the insane to asylums, and their masters, the Guardians, can hardly be

looked upon as interested either, but this notwithstanding, the parish of Lewisham will have cause to remember the danger of sending persons supposed to be of unsound mind to the County Asylum.

The facts of the case are simple, and it puzzles one to think how the lawyers managed to spread out the inquiry so that it lasted nearly three weeks. A certain Mr. Williams, a journalist, said to have been at one time on the staff of "The Times," was received into the Workhouse infirmary suffering from what was reported as alcoholism. He seems to have passed through various troubles of body and estate, and to have been exposed to cold and starvation for some time before his reception. He was depressed and miserable on admission, and the assistant medical officer spent a long time in the most careful investigation of his case, and agreed with the senior medical officer that Williams was suffering from melancholia with suicidal intentions, and that, therefore, he ought to be placed in the lunatic ward for safety. Williams said that he wished he were dead, and that life was not worth living. He also spoke of his friends having turned against him, and of persons in the street taking notice of him. He was sent into the lunatic ward where there was another patient who was dying from general paralysis of the insane, and this seems to have been one of Williams' grievances, that he was put into a ward where a raving lunatic was dying. After several examinations it was decided that he had better be sent to the County Asylum at Cane Hill, and this was done. On reception there the medical officers of the asylum could detect no clear evidence of insanity, and naturally waited. They were informed of the nature of the symptoms from which Williams suffered, but it was hardly their place to investigate the truth or falsity of all the statements made by the patient when he appeared free from any depression or excitement.

Anyway, they reported that they had detected no insanity, and the patient was only kept for a time under observation. At the end of some weeks he was discharged "well," and the troubles seem soon to have arisen, for Williams found sympathisers among the Lewisham Guardians, and the evening papers caused a sensation by a heading "Sane man in a Madhouse." The medical officer of the Workhouse, whose conduct was thus called in question, wrote asking for an inquiry, and about the same time some of the Guardians seem to have thought the whole matter should be sifted. The

inquiry was held before Inspector Dr. Downes, who, during the whole tedious process, displayed the most painstaking care, and the utmost calm, amid counsels' differences. We think the counsel for Williams went as far as was allowable in imputing motives to the doctors of the Workhouse, and the tone of the cross-examination recalled rather a criminal than a civil trial. After the most careful study of the newspaper reports on the case, we are convinced that there was enough evidence to satisfy the medical men of the Workhouse that Williams was probably suicidal as a symptom of melancholia, which depended on bad feeding, exposure, and excess of alcohol, and that, therefore, he should be treated as a lunatic. As to the asylum officers, though we feel the difficulty of their position, we cannot help thinking that if they heard of the various charges which were made against Williams they were hardly in a position to state that he was not insane, though he may have been free from the more active signs of insanity. This case once more calls our attention to the trouble and suffering that may be caused by patients who are suffering from forms of alcoholic insanity which temporarily render them irresponsible, but which, passing off, leave them permanently malignant.

*American Superintendents and the New York
Lunacy Commission.*

There is, and has been for some time, an indignant revolt on the part of the Superintendents of Asylums in the State of York and the State Commission in Lunacy. In England the almost unanimous feeling among mental specialists favours the existence of a Lunacy Board. With some exceptions the action of the Board in London has been fairly judicious. The late Lord Shaftesbury held the opinion strongly that very considerable freedom of action must be left to medical superintendents, even on points on which the Commissioners, individually or collectively, might entertain opposite views. In some instances in which this course has not been pursued by the Board, the result of the collision has been unfavourable to the authority of the Commissioners.

In the United States, the recent action of the New York Commission of Lunacy has been directed to petty details of management, which we regard as undignified, mischievous, and irritating. The consequence has been a disastrous con-

flict between the two authorities. Our sympathies are decidedly with the asylum authorities. We do not pretend to assert that these have always been as economical as they ought to have been, and it is only right that institutions supported by the State should be responsible to it. But when the Commissioners descend to notice the expense of a can of oil, their interference becomes at once ridiculous and galling. Yet this is the sort of meddling policy which characterises the New York Lunacy Board. We observe in the "New York Mail and Express" for January 23rd, 1894, a report of the proceedings of a meeting of the New York County Medical Society, held on the previous day, in which a resolution proposed by Dr. Charles L. Dana was adopted, that :—

Whereas the managers and superintendents of the New York State Hospitals for the Insane, many members of the medical profession, and influential medical journals interested in the proper care of the insane have made complaints against the present methods of control of these hospitals, and whereas many cogent arguments and facts have been presented showing the friction, disagreement, and future possible dangers of the present system ;

Resolved, that this Society refers the matter to the Comitia Minora, and requests that it investigate the subject and at the next meeting present resolutions such as it believes it would be proper for the Society to adopt.

An excellent Bill has been introduced into the Assembly, the object of which is to create a State Committee in Lunacy in the State Board of Charities, to define its powers and duties, and to abolish the existing State Commission in Lunacy.

If the proposed law is carried into effect the powers now vested in the Lunacy Board will be transferred to the State Committee in Lunacy, while the existing State Commission will cease to exist. This Bill, favoured by high authorities in the State of New York, will, in short, place as it should do the Committee in the same position as that in Pennsylvania, of which Dr. Morton is the chairman. We shall watch the fight with great interest, and sincerely hope that the result will be the overthrow of the present autocratic Board of Lunacy in New York.

We read in the "Utica Daily Press," January 23rd, the report of an interview with Dr. Alder Blumer, in which he states :—

I have set my face resolutely against the attempted injection of

politics in the management of State hospitals, and I have not hesitated to raise my voice and use my pen on behalf of local autonomy, under the wise management of trustees of high character, nominated by the Governor and confirmed by the Senate, subject, of course, to proper State supervision and inspection, and against a centralized despotism composed of two laymen and one medical politician. I have insisted upon my rights as the chief executive officer of a great public charity, and dared to decline to be regarded as a cog in what bids fair to become a monster political machine. I would like to say a word about the "American Journal of Insanity," a publication established in 1844, of which I have the honour to be editor-in-chief. Ever since the present Commission in Lunacy came into existence that Journal has been a thorn in its flesh, because, forsooth, it has striven to live up to the claim of its title to nationality, and has stoutly refused to lower itself on demand and threat to the grade of a servile organ of the Lunacy Commission.

Dr. Blumer adds that several futile attempts have been made to wrest the editorship from him, the latest being to call into question the right of a superintendent to employ his leisure in editing, without pecuniary reward, a scientific medical journal. However difficult it may be for those at a distance from the scene of a struggle in which the above-mentioned parties are engaged, to judge, and reluctant as we are, for this reason, to go out of our way to express any opinion upon it, we feel that the *esprit de corps* which ought to exist between American and English alienists renders it a duty to enter our protest against the extraordinary and unwarrantable, if not malignant, interference on the part of Lunacy Commissioners with the details of asylum management, which may fairly be left to the control of the Committee.

[More recent American newspapers show that the storm is still raging, and we fear that it will not be possible to abolish the Commission for a considerable time. It is stated that the Governor of New York declares that he will not sign an abolishing Bill. It is hoped, however, that there will be some remedial legislation.

We have read the evidence given before the Senate Committee on Finance by the Superintendents of the St. Lawrence and Utica State Hospitals (Dr. Wise and Dr. Blumer).

It contains a complete refutation of the charges brought against these institutions.]

Lord Wolseley on Napoleon.

With the publication in the "Pall Mall Magazine" of the first of Lord Wolseley's articles on "The Decline and Fall of Napoleon," the inveterate controversy as to the position of the "*Corsican Parvenu*" in the military and general history of the world assumes a new aspect, the development of which, as psychologists, we shall watch with much interest. There have already been three great epochs in this protracted conflict of opinion. To his contemporaries and rivals of the type of Dumouriez, Bonaparte was a magnificent charlatan of mediocre ability, fit only to serve as a divisional commander under men of light and leading like themselves. The school of thought, however, which saw no genius in the famous march from Boulogne to Ulm and Austerlitz necessarily wielded an ephemeral influence, and was quickly superseded by the reactionary school, of whose views Thiers was at once the founder and the ablest exponent. Over the veteran author of "The Consulate and the Empire" the spirit of Napoleon exercised a fascination of which the records of hero-worship furnish few analogies. Then came the school of Lanfrey, Taine, and Seeley. The method which these great writers sought to pursue in investigating the life and character of Bonaparte was excellent. They set before themselves as the object to be attained a cold, critical survey, detached alike from the rancour of Dumouriez and the adulation of Thiers. But they failed, and failed badly. In spite of all their critical acumen—and perhaps because of it—the Napoleonic idea eluded their grasp. They were no better fitted for their task than Bunyan would have been for that of writing an impartial biography of Charles the Second, and the writer who will raise a real living Napoleon from the 32 volumes of "Correspondance" in which his life and thoughts are entombed has still to appear above the literary horizon. Lord Wolseley makes no attempt to fill this vacant rôle. Indeed, we doubt whether it could be adequately filled by one who believes Napoleon to have been "the greatest of all the great men" that ever lived. But he makes a contribution of much interest and value to a question that has been occasionally mooted of late years, viz., What was the mysterious malady from which the French Emperor suffered at the close of his public life in Europe? Perhaps we ought to suspend

a definite answer to this question till we see what else Lord Wolseley has to say on the subject in his remaining articles. But in the meantime a rapid summary of the evidence on the point available to any student of modern French literature may not be inopportune. Of course, the matter to be considered is whether there was, in fact, at the end of Napoleon's military career a failing in his powers. Our ancestors would, no doubt, have deemed it unpatriotic to question that the "Boney" whom Wellington beat at Waterloo not only knew his best and did it, but was as competent a general as the hero of Arcola and Rivoli. But this comforting position is no longer tenable. Lord Wolseley points to the fatal delay of Napoleon at Wilna in the Russian campaign of 1812, and his equally fatal omission to support Ney at the crisis of the battle of Borodino; and, if we mistake not, the campaigns of Leipsic and Waterloo yield evidences still more cogent that the very faculty of commandership repeatedly deserted Bonaparte at the time when its presence was essential to his fortunes. The direct testimony of his contemporaries to the same fact is not wanting. Marshal Augereau (as we learn from Macdonald's memoirs) noticed it, although his coarsely-grained and jealous mind saw in it only a proof of the incompetence which he preferred to consider as a characteristic of his master, and the officers who received the fugitive Corsican on his return from Elba were astounded at his alternate fits of garrulity and silence, tremendous energy and hopeless lassitude. If, then, the fact of Napoleon's mental and physical decline is established, what was the cause? Lord Wolseley goes no further at present than "mental and moral prostration," and there is certainly nothing extraordinary in the theory that the prodigious and continuous strain to which the mighty intellect of the great captain had for years been subjected was at last destroying its machinery. But there is also positive evidence, we think, that Napoleon had become the victim of epilepsy, and without dwelling on the subject further just now, till Lord Wolseley's series has been completed, we may point out that the theory here suggested derives some corroboration from the circumstance on which his lordship's first article offers abundant proof, that while Napoleon's power of executing his plans was impaired, the splendour of his military imagination survived, and even increased in apparent brilliancy at the last.

Some years ago a physician informed us that his father, a medical man, was dining on one occasion at the same table as Napoleon, and that during the dinner he had a distinctly epileptic attack.

The Zierenberg Case.

Nothing would now be gained by an elaborate account of the Zierenberg case, or a justification of the verdict at which the jury arrived. Although it is probable that the plaintiffs suffered from the interposition of the Long Vacation between their case and that of the defendant, for the jury would naturally remember most vividly what they heard last, and although the terms of the libel in *Truth* were, perhaps, at some points stronger than the evidence warranted, it is impossible to doubt that the verdict was a right one. It is clear (1) that the plaintiffs were coarse, ignorant, and interested people, utterly unfit to have the care of inebriates, and (2) that the *régime* of the St. James's Home reproduced many of the worst abuses of the old asylum system which Lord Shaftesbury, who, by a strange irony of fortune, was once its President, did so much to destroy—the want of scientific or even rational classification, and the ancient, weary round of seclusion, harsh words, and blows. The reflections which the case suggests are not unimportant. It is obvious that voluntary “retreats” of this description ought to be made subject to Government inspection. It is out of the question to suppose that men of affairs like Lord Shaftesbury, Lord Aberdeen, and Mr. Samuel Morley can exercise any effective supervision over institutions of this character, or that their names are sufficient hostages to the public for their proper administration. Again, one cannot fail to observe that the disclosures in the Zierenberg case amply warrant Mr. Asquith's recent remarks to the deputation which pressed upon him the need for an amendment to the Inebriates' Acts, as to the caution with which the principle of compulsory sequestration has to be adopted and applied. It was stated in evidence that one patient at least was brought to the Zierenberg Home by a chimney sweep. It may be (Mr. Labouchere himself was, we believe, the author of the suggestion) that a contingent drawn from this humble, though deserving, section of the industrial community might profitably be added to the ranks

of our "hereditary legislators." But we have no desire to see its members, or, indeed, the members of any other class, without the special qualifications of knowledge and responsibility, left free to act as the arbiters of the liberty of habitual drunkards.

THE ASYLUM CHAPLAIN'S COLUMN.

"Ut Co-operatores simus."

[The following paper addresses itself to a chaplain's qualifications, particularly in dealing with the idiosyncrasies of patients.—Eds.]

The Asylum Chaplain "Ministering to the Mind Diseased."

By Rev. P. T. SYKES, County Asylum, Chartam Down, Kent.

The first and altogether indispensable qualification for the work of the minister of Religion is, and must ever be, that his heart and soul are absorbed in his work. All the learning of the schools would be of no avail, and yet all possible knowledge of both men and things could find ample scope in that interesting and all-embracing field of service, the very "labour of love!" But if the heart-service of any religious minister of the Gospel is so all-important a requisite for the due performance of the daily duties of the ordinary parish priest, yet more is it so in the case of him whose daily duty, nay, whose great privilege it is to "minister to the mind diseased," and unless the heart be really and truly in his work he can be of little, if any, good service to the mentally afflicted. Such a sad condition would prove a most prolific source of unhappiness and unprofitableness all round. "Can the blind lead the blind?" It is an old-established truth that no two persons are totally and unmistakably alike! Even so is it a moral fact that no two characters agree in every particular; and yet more, this thought brings me to the most interesting consideration of the whole matter, viz., the psychical condition of the insane, which is as varied as the physical and moral states of ordinary mortals. *Quot homines tot sententiæ.* The asylum chaplain, whose heart and soul are really and truly in the work, will make it his daily study to fathom the psychical conditions of his afflicted flock, so as to find ways and means and opportuni-

ties for the soothing balm of comfort and consolation! Very deep and sincere has been the gratitude of many a poor man or woman thus lovingly dealt with, and great the chaplain's encouragement and reward! *Nisi dominus frustra.*

But these matters are mysteries to the uninitiated, and can only be known by living and working among the insane. The treatment of them was, years ago, simply barbarous and inhuman, and although this is all changed, and for the better in every particular, yet remains there much to regret and to correct and reprove! The outer world have yet to learn their Christian duty towards the insane, and what I make a charge against the community at large I make a yet more pointed and special charge against the authorities in the Church, who appear to shun the very approach of the insane, as though insanity and leprosy were akin! By such conduct they lose, nay waste, many an opportunity of doing good to the patients and encouraging those whose lot and joy it is to minister to "the mind diseased." If this my first account of asylum work should happily bring about a better and more hopeful state of things in these few particulars, I shall consider myself well rewarded and encouraged to go on hopefully, and withal prayerfully, in a depressing and yet intensely interesting Christian work, and may have to say something more hereafter.

[In subsequent numbers of the Journal will appear under this column brief articles by the Rev. Hayman Cummings, Chaplain of the Oxford County Asylum, Littlemore, and by the Rev. H. Hawkins, Chaplain of the London County Asylum, Colney Hatch. The title of the former is a very practical one, namely, "Asylum Chapel Services; of what sort, and within what limits?" The article contributed by Mr. Hawkins is also eminently practical, and is entitled "A Plea for Daily Services in Asylum Chapels." The limited space set aside for contributions under "The Asylum Chaplain's Column" necessitates very short contributions, but we hope that these will be regularly contributed.]

"He who would benefit the insane must first love them."

ESQUIROL.

PART II.—REVIEWS.

The Life of William Cowper. By THOMAS WRIGHT, Principal of Cowper School, Olney. T. Fisher Unwin, 1892.

(Concluded from p. 86.)

Cowper describes his subsequent symptoms thus :

A frequent flashing, like that of fire before my eyes, and an excessive pressure upon the brain, made me apprehensive of apoplexy, an event which I thought the more probable, as an extravasation in that part seemed likely enough to happen in so violent a struggle.* (Southey's "Cowper," vol. i., p. 132.)

A physician was sent for, who assured Cowper that there was no danger of apoplexy, and wisely advised him to retire into the country. Unfortunately, however, he remained in his chambers in solitude, brooding over his religious condition. He arrived at the conclusion that "there never was so abandoned a wretch; so great a sinner." (*Loc. cit.*) Whatever book he took up he found some passage in it which condemned him, whether it was Beaumont and Fletcher, Tillotson's Sermons, or the Bible. "Everything preached to me, and everything preached the curse of the law." (*Op. cit.*, p. 133.)

If he walked out of doors he thought the people stared and laughed at him. He fancied the voice of his conscience was loud enough for everyone to hear it. One day he bought a ballad someone was singing in the street, because he thought it was written on himself. His dreams terrified him; he fancied he was guilty of the unpardonable sin. He repeated the Creed, to prove whether he had faith or not; when he came to the second clause he had no memory whatever of the first. In endeavouring to recall it, "I perceived," he writes, "a sensation in my brain like a tremulous vibration in all the fibres of it." This experience threw him into an agony, and on making a third attempt he entirely failed as before. He gave himself up to despair; a sense of burning in his heart was regarded by him as an earnest of future punishment. He passed through great religious exercises and painful doubts. He incidentally mentions that he usually slept three hours at night, waking often in terrible distress.

* We have in most instances made use of the original letters of Cowper, contained in his admirable "Life" by Southey.

Satan plied me close with horrible visions, and more horrible voices. My ears rang with the sound of torments, that seemed to awake me. . . . A numbness seized upon the extremities of my body, and life seemed to retreat before it; my hands and feet became cold and stiff; a cold sweat stood upon my forehead; my heart seemed at every pulse to beat its last, and my soul to cling to my lips, as if on the very brink of departure. No convicted criminal ever feared death more, or was more assured of dying. (*Op. cit.*, p. 139.)

Cowper had a very kind brother, who called upon him at this juncture, and the distemper of mind which he said he had so ardently desired, actually seized him. He walked up and down the room in horrible dismay, expecting the earth to swallow him up. He himself must describe what followed:—

A strange and horrible darkness fell upon me. If it were possible that a heavy blow could light on the brain, without touching the skull, such was the sensation I felt. I clapped my hand to my forehead and cried aloud, through the pain it gave me. At every stroke my thoughts and expressions became more wild and indistinct; all that remained clear was the sense of sin and the expectation of punishment. These kept undisturbed possession all through my illness, without interruption or abatement. (*Op. cit.*, p. 140.)

His brother at once recognized his mental derangement, and it was agreed that he should be conveyed to a private asylum * at St. Alban's, of which Dr. Cotton was the proprietor. This was in December, 1763. Cowper says of him that he was chosen not only for his skill as a physician, but for his well-known humanity and sweetness of temper. Dr. Cotton, it appears, was a man of literary tastes. He had written visions in verse, which were very popular, and after his death his prose and poetry were published in two volumes. Dr. Anderson's "Collection of the British Poets" contains his poems. Southey foretold that his stanzas, "The Fireside," would retain a place in popular selections. This author describes him as "An amiable, mild, good man, verging at that time on old age. Cowper regarded it as a providential circumstance that,

Instead of being delivered into the hands of one of the London physicians (who were so much nearer, that I wonder

* We have visited St. Albans and identified the spot formerly occupied by Dr. Cotton's asylum. It is divided into several small tenements, but it is not difficult to picture the building when Cowper was an inmate.

I was not) I was carried to Doctor Cotton. I was not only treated by him with the greatest tenderness while I was ill, and attended with the utmost diligence, but when my reason was restored to me, and I had so much need of a religious friend to converse with, to whom I could open my mind on the subject without reserve, I could hardly have found a fitter person for the purpose. My eagerness and anxiety to settle my opinions upon that long-neglected point made it necessary that, while my mind was yet weak and my spirits uncertain, I should have some assistance. The doctor was as ready to administer relief to me in this article likewise, and as well qualified to do it, as in that which was more immediately his province. How many physicians would have thought this an irregular appetite and a symptom of remaining madness! But if it were so, my friend was as mad as myself, and it was well for me that he was so. (*Op. cit.*, p. 150.)

Cowper recovered after a residence of 18 months, and went to reside near his brother at Huntingdon, his friends subscribing a sufficient sum to enable him to live in a small way in his retirement. The life at Huntingdon was a happy one; it was marked by great religious fervour and by his introduction to the Unwins, whose name, as well as that of Lady Hesketh, is inseparably connected with the history of the unhappy poet. He became an inmate of the family in November, 1765. His letters, which are always interesting, whether from their liveliness or from the self-analysis to which he was morbidly prone, have become universal favourites, that is to say, with all who know anything about Cowper, and are certainly not likely to be forgotten, even in the present fastidious and critical age. The correspondence with Lady Hesketh ceased in January, 1767. About this time he wrote:—

I am a living man, and I can never reflect that I am so without recollecting at the same time that I have infinite cause of thanksgiving and joy; this makes every place delightful to me, where I can have leisure to meditate upon those mercies by which I live, and indulge a vein of gratitude to that gracious God who has snatched me like a brand out of the burning. (*Op. cit.*, p. 189.)

Reference must here be made to the Rev. John Newton, as he is supposed to have exercised a depressing influence upon Cowper. Formerly a captain of a Liverpool slave ship, he entirely changed his mode of life, and before long became a clergyman in the Church of England. At the period of Cowper's life at which we have arrived, Newton was curate of Olney, in Buckinghamshire. Mr. Unwin had been thrown

from his horse and killed. It was therefore determined, on the advice of Mr. Newton, with whom the family at Huntingdon became acquainted, to remove to Olney. There can be no doubt that there was much more emotional religion in the services at Olney than at Huntingdon. Mr. Greatheed, in a funeral sermon on Cowper, says :—

“I have heard him say that when he expected to take the lead in your social worship, his mind was always greatly agitated for some hours preceding,”

and although it is added that his trepidation subsided, it must have been a very undesirable and exhausting frame of mind, for which he was totally unfitted. Well might Lady Hesketh fear the consequences and add, “I think it could not be either proper or wholesome.” (*Op. cit.*, p. 208.)

Cowper's brother died in 1770, an event which exerted an unfavourable influence upon him. The depression of spirits returned.

In 1772 Cowper became engaged to Mrs. Unwin,* and they intended to marry early in the following year. Mrs. Unwin's age was 48; Cowper's 41. The prospect, however, was blighted in consequence of symptoms of mental derangement recurring in Cowper. Newton, writing on June 7, to his wife, informed her that he was “in the depths as much as ever.” In October he was thought to be better, but unhappily he became more and more dejected. Although the symptoms of insanity were so clearly marked, he himself regarded the recurrence of his malady as dating from the 24th of January, 1773. “I plunged,” he writes, “into a melancholy that made me almost an infant.” The attack was so sudden and serious that Mr. Newton, who resided at the Vicarage, Olney, was called up at four o'clock in the morning to go to his house.

Cowper's description of his mental condition, written long afterwards (January 16, 1786), is very graphic :—

I was suddenly reduced from my wonted rate of understanding to an almost childish imbecility. I did not, indeed, lose my senses, but I lost the power to exercise them. I could return a rational answer, even to difficult questions, but a question was necessary, or I never spoke at all. This state of my mind was accompanied with misapprehension of things and persons that made me a very untractable patient. I believed that everybody hated me, and that Mrs Unwin hated me most of all, and was convinced that my

* Southey appears to have been mistaken in his opinion that they were not engaged. (See “Cowper's Life,” Southey, Vol. i., p. 239.)

food was poisoned, together with ten thousand megrims of the same stamp. (Wright, p. 209.)

It was in February, 1773, that a circumstance occurred, overlooked, Mr. Wright tells us, by all preceding biographers. He had a dream, from the effects of which he never completely recovered. Twelve years afterwards (October 16, 1785) he writes :—

I had a dream twelve years ago, before the recollection of which all consolation vanishes, and, it seems to me, must always vanish. But I neither trouble you with my dream, nor with any comments upon it, for, if it were possible, I should do well to forget that, the remembrance of which is incompatible with my comfort. (Wright, p. 206.)

In January, 1773, he was quite insane. He objected to cross Mr. Newton's threshold ; he was induced, however, not only to pay him a visit, but to stay all night, and curiously enough he became his guest for months. Mr. Newton went to St. Alban's to obtain Dr. Cotton's opinion as to what should be done. In accordance with the medical fashion of the day he recommended venesection and to take some medicine. Bled he was, to what extent is not stated. It is recorded that —

Medicines greatly strengthened his body ; but their repeated use seemed at length to have an inconvenient effect upon his spirits. He said they made him worse, and for several days, when the hour for taking them returned, it put him in an agony. Upon his earnest and urgent entreaties he has left them off for a season, and has been better since, I mean more quiet and composed. (*Op. cit.*, p. 251.)

Dr. Cotton, on being again consulted, approved of the discontinuance of the medicine. The poet once more became suicidal, and made an attempt on his life in October, 1773. He believed himself doomed to everlasting perdition. Then came amendment ; he was seen to smile while he was feeding the chickens ; he had not smiled for more than sixteen months. He returned to his proper residence at the Unwins. It was, however, at least two years before he resumed correspondence with his friends. A few months afterwards he returned to his literary interests and pursuits. After twelve years' friendship, Cowper's friend Newton left Olney, which he naturally felt acutely. However, he was engaged before long in versification, and it is a most happy circumstance that so much of his time was spent in this way.

In cases of insanity it not unfrequently happens that the dreams of a patient present an entirely different complexion from the mental condition of the day. With Cowper, his sleeping hours were the happiest. His dreams were "gracious and comfortable," but when he awoke his distress returned. In one instance, however, his sleeping and waking states were equally miserable. "I have been lately," he writes, "more dejected and more distressed than usual, more harassed by dreams in the night, and more deeply poisoned by them in the following day."

Everyone knows the strange, but not unusual, mixture in Cowper's character of humour and melancholy, the contrast reaching its climax in "John Gilpin" and the "Castaway." Writing to Newton, he expresses his surprise that a sportive thought should ever knock at the door of his intellect, and even gain admittance. He compares it to a harlequin intruding himself into the gloomy chamber where a corpse is deposited.

His antic gesticulations would be unseasonable at any rate, but more especially so if they should distort the features of the mournful attendants with laughter. But the mind, long wearied with the sameness of a dull dreary prospect, would gladly fix its eyes on anything that may make a little variety in its contemplations, though it was but a kitten playing with her tail. (*Op. cit.*, p. 281.)

There is some acuteness in the distinction drawn by Sir Egerton Brydges, between a melancholy which is black and diseased, and a grave and rich contemplativeness, from the former of which Cowper suffered; the very opposite of a smiling, colloquial, good-natured humour. Cowper found that to be "merry by force" more effectually dispersed his melancholy than anything else. "Strange as it may seem, the most ludicrous lines I ever wrote have been written in the saddest mood, and but for that saddest mood, perhaps, had never been written at all." (*Op. cit.*, ii., p. 39.)

In 1782 (November) it is pleasant to find him writing in such a cheerful strain as this:—

If my health is better than yours, it is to be attributed, I suppose, principally, to the constant enjoyment of country air and retirement, the most perfect regularity in matters of eating, drinking and sleeping, and a happy emancipation from everything that wears the face of business. I lead the life I always wished for, and, the single circumstance of dependence excepted, I have no

want left broad enough for another wish to stand upon. (*Op. cit.*, ii., p. 36.)

It would be tedious to quote the many passages in the poet's letters describing his mental sufferings, and more or less resembling the following, written to Mr. Bull:—

The sin by which I am excluded from the privileges I once enjoyed you would account no sin; you would tell me that it was a duty. This is strange. You will think me mad; but I am not mad, most noble Festus! I am only in despair, and those powers of mind which I possess are only permitted to me for my amusement at some times, and to acuminate and enhance my misery at others. (*Op. cit.*, ii., p. 66.)

And again:—

Nature revives again, but a soul once slain lives no more. . . . The latter end of next month will complete a period of 11 years in which I have spoke no other language.

Southey thus writes:—

It is consolatory to believe that during the long stage of his malady Cowper was rarely so miserable as he represented himself to be. That no one ought to be pronounced happy before the last scene is over, has been said of old in prose and in verse, and the common feeling of mankind accords with the saying. . . . A melancholy sentiment will always for this reason prevail when Cowper is thought of. But though his disease of mind settled at last into the deepest shade, and ended in the very blackness of darkness, it is not less certain that before it reached that point it allowed him many years of moral and intellectual enjoyment. (*Op. cit.*, ii., p. 70.)

In 1787 Cowper's mental disorder returned. Referring to it after his recovery, he says that it could not have been of a worse kind than it was. The sight of anyone, always excepting Mrs. Unwin, was insupportable. He relates how he suddenly emerged from this unhappy state. Had his father or brother returned from the dead, their company could have afforded him no pleasure; but he could report that his health and spirits were considerably improved, and he once more mixed with his neighbours. He complained, however, of his head, and that he was subject to giddiness and pain; "maladies very unfavourable to poetic employment." He took a preparation of bark regularly, and he hoped that by its help he might possibly find himself "qualified to resume the translation of Homer." Cowper did not escape the lancet—once, at least, by Dr. Cotton's orders.

I was blooded, but to no purpose; for the whole complaint was owing to relaxation. But the apothecary recommended phlebotomy in order to ascertain that matter, wisely suggesting that if I found no relief from bleeding, it would be a sufficient proof that weakness must necessarily be the cause. It is well when the head is chargeable with no weakness but what may be cured by an astringent. . . . I have a perpetual din in my head, and though I am not deaf, hear nothing aright, neither my own voice nor that of others. (*Op. cit.*, ii., p. 277.)

At this time, when resuming his correspondence with Mr. Newton, he confesses that for 13 years he did not believe in his identity, but that now he no longer doubts it.

Auditory hallucinations were a marked feature at one period of Cowper's malady. Voices were heard, especially on waking in the morning, and sometimes in the night itself. His friend Mr. Johnson not unnaturally thought that if he could convey encouraging words to him by means of a tube, near the bed's head, the patient would imagine the words to be as supernatural as the "voices" he so frequently heard when in bed. Some years later he tried this experiment. It, however, failed to produce a favourable impression, although Cowper did not detect the deception. (*Op. cit.*, iii., p. 196.)

In one letter he states that the following words were very audibly spoken to him in the moment of waking: "*Sacrum est quod dixi.*" And in another he writes:—

I awoke this morning with these words relating to my work, loudly and distinctly spoken: "Apply assistance in my case, indigent and necessitous." And about three mornings since with these: "It will not be by common and ordinary means." It seems better, therefore, that I should wait till it shall please God to set my wheels in motion than make another beginning only to be obliterated like the two former. I have also heard these words on the same subject:—"Meantime raise an expectation and desire of it among the people." My experiences this week have been for the most part dreadful in the extreme, and to such a degree, in one instance, that poor Mrs. Unwin has been almost as much in an agony as myself. (*Op. cit.*, iii., p. 117.)

He regarded the year 1792 as the most melancholy he had ever known, but with the new year he wrote with more cheerfulness, but still hearing voices—

This morning I am in rather a more cheerful frame of mind than usual, having had two notices of a more comfortable cast than the generality of mine. I awoke, saying, "I shall perish,"

which was immediately answered by a vision of a wine glass, and these words: "A whole glass."* Soon after I heard these:—"I see in this case just occasion of pity." (*Op. cit.*, iii., p. 121.)

Writing in February of this year, he thus expresses himself:—

From four this morning till after seven I lay meditating terrors, such terrors as no language can express, and as no heart, I am sure, but mine ever knew. My very finger-ends tingled with it, as indeed they often do; I then slept and dreamed a long dream, in which I told Mrs. Unwin, with many tears, that my salvation is impossible. I recapitulated, in the most impassioned accent and manner, the unexampled severity of God's dealings with me in the course of the last twenty years, especially in the year 1773, and, again, in 1786, and concluded all with observing that I *must* infallibly perish, and that the Scriptures, which speak of the insufficiency of man to save himself, can never be understood *unless* I perish.

I then made a sudden transition in my dream to one of the public streets in London, where I was met by a dray; the fore-horse of the team came full against me, and in anger I damned the drayman for it. (*Op. cit.*, iii., p. 130.)

A few days afterwards he informed his correspondent that he awoke distinctly hearing the following words:—

Charles the Second, though he was or wished to be accounted a man of fine taste and an admirer of the arts, never saw or expressed a wish to see the man whom he would have found alone superior to all the race of man. (*Op. cit.*, iii., p. 131.)

Cowper found no comfort in these revelations. It is true that in a few weeks he relates that a temporary suspension of terror was audibly announced to him, and that with one or two exceptions it had been fulfilled. Soon the depression returned, however, and this was announced to him thus, "I

* Alluding to the well-known story of Mrs. Honeywood, a lady who had almost twenty years lain sick of a consumption through melancholy, Fox, the martyrologist, visited her and assured her that she would recover and live to a great age. "At which words the sick gentlewoman, a little moved, and earnestly beholding Master Fox, 'As well might you have said,' quoth she, 'that if I should throw this glass against the wall I might believe it would not break to pieces.' And, holding a glass in her hand, out of which she had newly drank, she threw it forth; neither did the glass, first by chance lighting on a little chest standing by the bed-side, and afterward falling upon the ground, either break or crack in any place about it. And the event fell out accordingly. For the gentlewoman, being then threescore years of age, lived afterwards for all example of felicity seldom seen in the offspring of any family; being able, before the ninetieth year of her age (for she lived longer), to reckon three hundred and three score of her children's children and grandchildren." The "consumption" was evidently not of the lungs, but a combination of hysteria and melancholy.

have got my old wakings again." And he adds that if they continued he would be completely unable to write anything.

In the winter, he adds, I expected to be crushed before spring, and now I expect to be crushed before winter. I were better never to have been born than to live such a life of terrible expectation. . . . I believe myself the only instance of a man to whom God will promise everything and perform nothing. . . . I have already told you that I heard a word in the year '86, which has been a stone of stumbling to me ever since. It was this, "I will promise you anything." (*Op. cit.*, iii., p. 136.)

He describes to Lady Hesketh how his head "is fatigued by breakfast time, that three days out of four I am utterly incapable of sitting down to my desk again for any purpose whatever." (*Op. cit.*, iii., p. 138.) It must be borne in mind that he was up by six o'clock every morning and fagged till about 11 before he took his breakfast.

In August (1798) he writes :—

I dreamed about four nights ago that, walking I do not know where, I suddenly found my thoughts drawn towards God when I looked upwards and exclaimed, "I love Thee even now more than many who see Thee daily." This morning I had partly in Latin and partly in Greek, *Qui adversus oedev stant, nihili erunt.* (*Op. cit.*, iii., p. 148.)

In the next letter he says that the day hardly ever comes to him in which he does not utter a wish that he had never been born, while the night had become so habitually a season of dread to him that he never lay down on his bed with comfort, and he adds :—

I cannot ever hope on that subject, after twenty years' experience that, in my case, to go to sleep is to throw myself into the mouth of my enemy.

He writes that for some time he had taken laudanum and found a little relief from it; also James's powders, from which also he found some relief.

Mrs. Unwin's illness exercised a very depressing effect on the poet's mind, and the well-known pathetic lines addressed to her were written about this period.

Hayley might well write of his friend Cowper :—

It was a spectacle that might awaken compassion in the sternest of human characters, to see the health, the comfort, and the little fortune of a man so distinguished by intellectual endowments and by moral excellence perishing most deplorably. . . . Imagination can hardly devise any human condition more truly affecting than

the state of the poet at this period. His generous and faithful guardian, Mrs. Unwin, who had preserved him through seasons of the severest calamity, was now, with her faculties and fortune impaired, sinking fast into second childhood. The distress of heart that he felt in beholding the cruel change in a companion, so justly dear to him, conspiring with his constitutional melancholy, was gradually undermining the exquisite faculties of his mind. (*Op. cit.*, iii., p. 159.)

Willis—cleric and doctor—was consulted in Cowper's case.

"Whether even his skill," writes Lady Hesketh, "would be able to restore this unhappy man, at this distance, I cannot at present say, but earnestly hope it may, as I fear Mrs. Unwin will not consent to his removal there, though from the little I saw of the house, and the manner in which the patients are treated, as well as the liberty they seem to enjoy, I am convinced it would be the very best place he could be in, and the one in which he would be most likely to be restored—the rather, as it would separate him from one who, partly from the attention she requires, and partly from imbecility of mind, occasioned by her bodily infirmities, is certainly the worst companion he can have at present." (*Op. cit.*, iii., p. 169.)

It must be added that Willis's prescriptions were not attended by benefit, in consequence of which he visited the patient. Southey states that he recommended change of air, scene, and circumstances as more likely to benefit the patient than any mode of treatment.

Nothing, however, was done, and a pitiable account of his state of health is given by Lady Hesketh:—

It grieves me to say he is very bad indeed, scarce eats anything, is worn to a shadow, and has totally given up all his little avocations, such as netting, putting maps together, playing with the solitary board, etc., with which we contrived to while away the winter more tolerably than I had any reason to expect. He now does nothing but walk *incessantly* backwards and forwards, either in his study or his bedchamber. He really does not, sometimes, sit down for more than half-an-hour the whole day except at meal times, when, as I have before said, he takes hardly anything. He has left off bathing his feet, will take no laudanum, and lives in a constant state of terror that is dreadful to behold! He is now come to expect daily, and even hourly, that he shall be carried away;—and kept in his room from the time breakfast was over till four o'clock on Sunday last, in spite of repeated messages from Madame, because he was afraid somebody would take possession of his bed, and prevent him lying down on it any more! (*Op. cit.*, iii., p. 174.)

Lady Hesketh reports having written to Willis informing him how rapidly his malady had increased within a few weeks. She expresses her opinion that he had no chance either for health or life except by passing some time under his care.

Cowper left Weston for Norfolk, and is said to have had a presentiment that he should not return. Mr. Johnson had undertaken his removal to the village of North Tuddenham, and occupied a parsonage, at that time unoccupied, and in August he was taken to a small place (Mundsley), on the coast, in the hope that the sea air would revive his spirits, and, in fact, he records having experienced pleasure of a certain kind from the sight and sound of the ocean, "which have often composed my thoughts into a melancholy, not unpleasing, or without its use." (*Op. cit.*, iii., p. 185.)

From Mundsley Cowper writes to Lady Hesketh that he is as hopeless as ever, and expresses himself in these graphic terms :—

The most forlorn of beings, I tread a shore under the burthen of infinite despair, that I once trod all cheerfulness and joy. I view every vessel that approaches the coast with an eye of jealousy and fear, lest it arrive with a commission to seize me. (Vol. iii., p. 185.)

It is worth noting that at this time, although so intensely depressed, he would take a moonlight stroll on the very edge of the cliff, without availing himself of the opportunity to commit suicide. He wrote that although it would perhaps have been the best for him to be dashed to pieces, he shrank from the precipice; waiting, he adds, to be dashed in pieces by other means.

The poet took long walks with his friend and kinsman Mr. Johnson, one day fifteen miles, and took some interest in the objects around him. Although he emaciated, he retained not a little muscular strength. But any gleam of sunshine was always followed by despair, and in a few days he writes to Lady Hesketh :—

What a lot is mine! Why was existence given to a creature that might possibly, and would probably, become wretched in the degree that I have been so, and whom misery, such as mine, was almost sure to overwhelm in a moment? But the question is vain. I existed by a decree from which there was no appeal, and on terms the most tremendous, because unknown to, and even unexpected by me; difficult to be complied with had they been fore-known, and unforeknown, impracticable. (*Op. cit.*, iii., p. 192.)

It was in October, 1795, that Cowper removed with Mr. Johnson to Dunham Lodge, near Swaffham, in the same county. Here he read some novels, especially Richardson's, with considerable pleasure, although he asserted that he lost every other sentence through the inevitable wanderings of his mind, and in a letter written January, 1796, he pours forth his "unexampled misery incurred in a moment," in the customary exclamation :—

Oh, wretch!—to whom death and life are alike impossible! Most miserable at present in this, that being thus miserable I have my senses continued to me, only that I may look forward to the worst. (*Op. cit.*, iii., p. 195.)

He also refers to his auditory hallucinations, and to his delusion that he should never die, but be speedily carried away to some place of torment.

His misery and constant apprehension that something dreadful would happen did not, however, preclude his taking some interest in Gilbert Wakefield's edition of Pope's "Homer," which Mr. Johnson put in his way, and he revised his own translation in consequence, until a journey, undertaken with a view to benefit his health, led him to discontinue the work—an unfortunate circumstance.

The scene now changes to East Dereham, his next Norfolk home, and the residence of Mr. Johnson, Cowper exclaiming, "Wretch that I am to wander alone in chase of false delight." This was at the end of October, 1796, and on the 17th of December Mrs. Unwin died. The poet affirmed that she was still living, and would undergo the horrors of suffocation in the grave, and all on his account. On seeing her remains, however, he flung himself to the other side of the room with a passionate expression of feeling—the first that he had uttered or that had been perceived in him since the last return of his malady at Weston; but the effect for the time was what his kinsman had desired. He became wonderfully calm; as soon as they got downstairs he asked for a glass of wine, and from that time he never mentioned her name nor spoke of her again. (*Op. cit.*, iii., p. 206.)

Not long afterwards Hayley, the constant friend of Cowper, threw out a suggestion in the hope of producing a beneficial effect on the poet's mind. The plan is thus described in a letter from Lord Thurlow to Lord Kenyon (Nov. 22nd, 1797) :—

Cowper's distemper persuades him that he is unmeritable and

unacceptable to God. This persuasion, Hayley thinks, might be refuted by the testimony of pious men to the service which his works have done to religion and morals. He has, therefore, set on foot a canvass to obtain the *testimonia insignium virorum* to these services, by which means he very reasonably hopes to obtain the signatures of the King, Bishops, the Judges, and other great and religious men who may happen to be found within the same vortex; . . . *laudare a laudatis viris* must give him pleasure, if his disease will admit of it, and if the effect of it in removing the malady may be doubted, the experiment seems harmless at least and charitable. (*Op. cit.*, iii., p. 213.)

The experiment was tried, but altogether failed.

Mr. Johnson, fortunately, succeeded in inducing him to continue the revisal of his "Homer," Cowper saying, plaintively, "I may as well do this, for I can do nothing else." "This work," Mr. Johnson records, "seemed to extend his breathing, which was at other times short, to a depth of respiration more compatible with ease." Although, however, his melancholy was not in appearance so intense, and although he was able to listen to Gibbon's works, he writes of himself as a wretch who can derive no gratification from a view of nature, and adds, "In one day, in one moment I should rather have said, she became a universal *blank* to me, and, though from a different cause, yet with an effect as difficult to remove as blindness itself." (*Op. cit.*, iii., p. 219.)

It was on the 8th of March, 1799, that he finished his revisal of "Homer." On the 20th of the same month he composed the beautiful but melancholy lines called "The Castaway," his last original poem.

It was not long before symptoms of dropsy appeared, and he was attended by a physician. He became very weak, and was unable to go downstairs. When asked by Dr. Lubbock, from Norwich, how he felt, his reply was, "Feel! I feel unutterable despair." All Mr. Johnson's efforts to administer religious consolation were resented, and he was earnestly entreated to desist. The last words he uttered were, when a lady offered him a cordial, "What can it signify?" On the next day, April 25th, 1800, he became unconscious, and shortly afterwards William Cowper expired, aged 69.

So ended his miserable earthly existence.

Cowper was buried in Dereham Church, where a monument was erected to his memory.

Summarizing the history of Cowper's malady, there was first an hereditary tendency to insanity, and the insane

diathesis was well marked in early life. When of age he suffered from an attack of mental depression for nearly a year. At 32 he attempted suicide and laboured under auditory hallucinations. He was placed in a private asylum, and although he recovered in eight months he remained there voluntarily for a year afterwards. When he was 42 years of age his third attack occurred. A terrible dream decided his fate; he believed he was forsaken of God, and, with a few short intervals, he remained profoundly melancholy till his death, in 1800, a period of 27 years and three months.

In what does the interest of Cowper's case really lie? Chiefly in this—the persistence for so many years of a systematized delusion which does not appear to have weakened his mental faculties, and which allowed of his composing from time to time some of the most poetical productions of his Muse. Further, the interest of his psychological history is increased by this delusion having become, by a dream, absolutely and indelibly fixed.

Our object in this review has been to put together a connected psychological history of the life of a poet whose productive power was for years so grievously paralyzed by mental disease. What he might have produced, had his mental health been preserved, will never be known.

To the religious world the case of Cowper, so humble and so child-like, has presented a riddle which has perplexed it and baffled the efforts of the theological mind to solve the problem of so much misery in life, and a death unrelieved by a single gleam of sunshine. That he was the victim of a dreadful creed is true, but it is only by recognizing the lamentable effect of brain disease upon the highest, no less than the lowest, mental functions, and the noblest aspirations of which man is capable, that any satisfactory solution of the puzzle can be found. We cannot emphasize the importance of insisting upon this more forcibly than by citing a passage from the Journal of one who was familiar with the insane, but who seems, in the italicised words, to have strangely misunderstood Cowper's mental condition. Under date August 20th, 1845, Lord Shaftesbury writes:—

Have been reading, in snatched moments of leisure, "Life of Cowper." What a wonderful story! He was, when he attempted his life, thoroughly mad; *he was never so at any other time*. Yet his symptoms were such as would have been sufficient for any mad-doctor to shut him up, and far too serious to permit any Commissioner to let him out, and, doubtless, both would be justified. The experiment

proved that Cowper might safely be trusted, but an experiment it was, the responsibility of which not one man in three generations would consent or ought to incur. We should, however, take warning by his example, and not let people be in such a hurry to set down all delusions (especially religious delusions) as involving danger either to a man's self or to the public. There are, I suspect, not a few persons confined whom it would be just as perplexing, and yet just as safe, to release as the Poet Cowper. ("Life," by Edwin Hodder, Vol. ii., p. 113.)

Shaftesbury on Cowper! With this significant passage we close our review, and commend Mr. Wright's work to the readers of the Journal.

A Treatise on Nervous and Mental Diseases, for Students and Practitioners of Medicine. By LANDON CARTER GRAY, M.D. With one hundred and sixty-eight illustrations. London: H. K. Lewis, 136, Gower Street. 1893.

With the increasing publication of monographs on various branches of medicine, the compilation of a treatise on nervous and mental diseases, or on any other class of diseases, must become more and more tedious and difficult, readers becoming more and more critical. But, without being too exacting, one may still be disappointed with Dr. Carter Gray's work, and after careful perusal we can but award it lukewarm praise. As we shall have occasion to show, it is of decidedly unequal merit—some of the chapters, with the author, we take it, at his best, leave nothing to be desired; but in others we find but scant descriptions, and there are important omissions—omissions which we cannot (after reading the author's preface) qualify as non-essential.

The theme of the book is rigidly therapeutical, the author tells us, and, as a rule, the articles on treatment are good. We do not know on what evidence reliance is placed for this sweeping generalization: "It is yet certain that Europeans in investigating disease regard the patient simply as its vehicle, whilst Americans go one step further and deem the cure all-essential." We may appeal to the numerous suggestions which have been made of late for the treatment of various diseases by Europeans—that of myxœdema by thyroid extract (not mentioned by the author, although the preface bears the date November, 1892), the experiments of Brown-Séquard with animal extracts, etc., etc., and the

investigations of bacteriologists on immunity, as a testimony to the fact that the patient is not simply considered as the vehicle of disease in Europe. The recommendation of Dr. Ch. Macalister to try the effect of the administration of the thymus in pseudo-muscular hypertrophy is probably worth that advocated on theoretical grounds by the author, and we may be allowed to be sceptical concerning the effects of minim doses of belladonna (we suppose the tincture) in Thomsen's disease.

The treatise is divided into three parts: Part I., Introduction; Part II., Nervous diseases; Part III., Mental diseases.

In Part I. we find a good description of the anatomy of the brain, and especially as regards localization. The plates, diagrams, etc., illustrating this portion of the work are generally excellent and well executed; we might, for instance, single out Fig. 28, Fig. 32, Fig. 36, Fig. 37, and Fig. 50.

The bibliography at the end of this, and, indeed, of each chapter in the book, is very useful. Chapter II., on electricity, is well written. It is a summary which every student of medicine should know by heart, and clearly explains the meaning of batteries, milliamperes, rheostat, etc.—rudiments which often have never been mastered, or have been forgotten. Dr. Carter Gray prefers, and with reason, the dry Leclanché cell for use in portable batteries, and the Law cell for stationary ones. There are practical remarks concerning diffusion of the electrical currents and its relation to the size of the electrode used, and a useful table of the electrical resistance of the skin in various parts of the body.

The chapters on nervous diseases open with a good practical account of the localization of cortical lesions, and of the symptoms of lesions of the spinal cord. In the discussion of the knee-jerk, the author lays stress on the presence of the spasmodic element in the jerk as an indication of abnormality; in practice, however, the determination of the existence of this spasmodic element is not always an easy matter.

While mentioning that cerebral thermometry is not a common clinical aid, still Dr. Carter Gray thinks "that in doubtful cases of intra-cranial neoplasm it may be of great value when there is a local rise of temperature implicating one or more *stations* on one side of the head." Further

experiments and observations by Mosso and others in this direction are much needed.

In the description of the various nervous diseases, we like the tabular form adopted in enumerating the brain symptoms and the different causes; it helps to impress them upon the mind of the reader. Among the best articles in the book, some of which are really excellent, we venture to select the following: On myelitis, progressive muscular atrophy, the cerebral palsies of childhood, intracranial growths, epilepsy, neurasthenia, and syphilis of the nervous system. In the last-mentioned there are judicious remarks concerning the administration of iodide of potassium—such an important element in cerebral treatment.

Unfortunately, it is by comparison with the above that we notice a falling off in the account of many other diseases.

In the discussion on meningitis there is too little said about tubercular meningitis. Dr. Carter Gray discards altogether the ice-bag or mercury inunction, and advocates ergot in the treatment of meningitis.

Attention is drawn to the relation between migraine and epilepsy, and the author believes that at some time or other in the history of the cases there is a loss of consciousness with migraine. As regards its treatment, *cannabis indica* is advocated with as much force as the bromides in epilepsy.

There is an interesting account, under the heading of chorea, of some cases which develop suddenly after a slight attack of rheumatism, and in which we find the association of rapid pulse and rapid breathing. According to the author, the rôle of articular rheumatism in the etiology of chorea has been very much over-estimated; in 250 cases, he gives only 18 in which rheumatism enters into the causation. We think something more might be said concerning the relation of chorea to valvular disease of the heart; so good an observer as the late Dr. Hilton Fagge says that "this lesion (*i.e.*, simple inflammation of the valves of the heart) probably occurs in almost every case of chorea." The circumstance that chorea and acute rheumatism are almost alone in giving rise to this disease of the cardiac valves of itself suggests a close relation between the two.

Considering the enormous literature on the subject, the great variety in the symptoms of hysteria, and the importance of an accurate diagnosis, we think the article in this book is too short. In many cases, in spite of the author's opinion, we believe that the anæsthesia of hysteria is

characteristic, as Charcot has so frequently pointed out, and helps us strongly to differentiate it from the anæsthesia due to organic lesion. We should have expected also under this heading a description of hysterical tremors (bare mention of which is made in discussing the differential diagnosis of disseminated sclerosis), of hysterical vomiting (of which a case is mentioned, p. 517), and hysterical paralysis (paraplegia, monoplegia, etc.).

The subject of neurasthenia, so important and so difficult, is wisely included by the author, and ably handled. The symptoms and treatment are carefully given.

We suppose that the frequent difficulty of diagnosing the cause of coma in any given case is the reason that so little is said about it in most of our text-books on nervous diseases, and Dr. Carter Gray's is no exception; and yet how often does it happen that a practitioner sees a patient in this condition for the first time, when a prompt diagnosis may be of the most vital importance.

We do not know whether alcoholic paralysis is as frequent in New York as in London, but we should like to have found a more lengthy description of this characteristic complaint, as well as some reference to its occasional dangerous complications—paralysis of the diaphragm, affections of the vagus, etc. In merely including it under the heading multiple neuritis, the student is left in the dark as to its relative importance and comparative frequency—he is left to the belief that it ranks with the multiple neuritis of arsenic or variola.

Sufficient importance is not attached to the tremors in exophthalmic goitre, which recent observations have proved to be so common, and we have no mention made of cardiac irregularity. Dr. Sansom concludes, after recording a number of cases, that "arrhythmia cordis may (in many instances) be considered as a *forme fruste* of Graves' disease."

When compared with the excellent account of locomotor ataxy which is to be found in P. Marie's "*Maladies de la Moelle*," Dr. Carter Gray's remarks concerning this disease are very meagre; there is scarcely anything said about gastric crises or laryngeal crises, no description of Charcot's joint disease—all symptoms which are usually considered pathognomonic.

We are pleased to find that syringo-myelitis, divers' paralysis, astasia-abasia, and Morvan's disease are con-

sidered. The relation of Morvan's disease to syringomyelitis on the one hand and leprosy on the other requires further elucidation before we can pronounce on its existence as a separate pathological entity.

As the preface bears the date of November, 1892, we are surprised to find no mention of the treatment of myxœdema by thyroid extract, as we said before.

In the interesting account of Ménière's disease, the author expresses a belief that a good deal may be done by treatment directed to the naso-pharynx, and deprecates large doses of quinine.

The article on "alcoholism and morphinomania" is another illustration of what we feel is a marked defect in the book—that is its apparently hurried compilation, or its omissions. There is a fair account of the alcoholic habit, its manifestations, etc., but the student looks in vain for anything about morphinomania.

It is, however, when we deal with the third part of this treatise, *i.e.*, "mental diseases," that we feel most disappointed; it is very sketchy, and conveys as a rule but a feeble portraiture of the various types of insanity, and there is a good deal of importance which is altogether omitted.

In discussing "morbid fears and impulses," the author says that the prognosis is usually excellent with proper treatment, and that suggestion will often work wonders; if so, his statement that "the therapeutic value of hypnotism is small" ought to be qualified.

To mania only three pages are allotted. Under the heading "melancholia" we search in vain for hints concerning dieting, and the important treatment of refusal of food.

There is a brief reference to "melancholia with stupor," but no description of the clinical entity or syndrome "stupor." Whether we consider stupor as an episode in certain mental diseases, or as a separate disease, the "primary dementia" of some authors, it is nevertheless true that stupor is a more or less characteristic condition with its own group of symptoms and signs, and requiring certain treatment.

About "delirium grave," or acute delirious mania (well described by Dr. Percy Smith)—a rather rare condition 'tis true, but a very important one—we find but a few lines.

There is a mention of moral insanity under the heading "moral paranoia," but very little information regarding it.

Without grumbling with the author, who says that it is

absurd to talk of puerperal insanities, it is nevertheless convenient in the present state of our knowledge, and in the absence of a satisfactory classification of insanity, to discuss in a treatise on mental diseases the relation of pregnancy, the puerperium and lactation to insanity. So also should mention be made of the insanities of development, the relation of phthisis to insanity, etc., etc.

Dementia might well have had a chapter devoted to it.

In fact, beyond a fair account of paranoia and general paralysis of the insane (paralytic dementia), there is very little to be recommended in this part of the book. We believe we have said enough to show that, taken as a whole, this treatise is decidedly of unequal merit. Much of it is excellent, and it is generally sound—in the sense of its matter being generally accepted)—an important point in a work addressed to students and general practitioners.

For the rest, the publishers are to be praised for their share in the production of the book; the text is well printed, and on good paper; the illustrations are clear; there are, however, a certain number of “clerical errors.”

Dr. Pascal. By ZOLA.

This is a novel written “for a purpose,” the purpose being the exposition of heredity. We are suspicious of such productions for the reason that it is impossible to blend dry scientific facts with the ordinary attributes of popular reading in such a way as to prevent imagination overcoming accuracy. This work, though interesting in many ways, cannot be said to successfully dress science in a popular garb, while it contains many elements of danger to ordinary novel-readers. As to *technique*, we need hardly say that word structure and word painting are masterly. The plot may be described as a weaving of horrors, psychological, moral, and physical, into a tale of rural and domestic life, the latter being just of that easy and natural character which does so much to promote, whether for good or evil, the intaking of the more active incidents.

The general idea is that of an ultra-scientific doctor patiently working out his family history. He constructs a tree on which are shown the characteristics of five generations, he himself being of the third. The theory which he evolves as a result of his studies is such as is generally ac-

cepted. Parents hand down to their offspring tendencies to departure from the normal—fathers more to sons, and mothers more to daughters—prepotency, and so on. He reckons as varieties direct, indirect, reverting, and influence hereditary, the latter being the influence of a deceased husband over the produce of his relict when she has been blessed with another mate. As to the first three, we cannot follow the author in giving such importance to mere clinical accidents, and the fourth form is too shadowy for discussion here. The attributes of a new being he divides into two portions—*heredity* or imitation, and *innateness* or diversity. We cannot accept such a division. A scientific term is essentially one that must be, so to speak, self-containing; it must have a basis of fact. Here *innateness* (in itself a most misleading term) has its basis on a negative failure to establish imitation. As is very usual in the discussion of this problem, the word heredity is used in many senses, leading to confusion of ideas. Heredity may mean the laws of inheritance, the actual incidence of inheritance, the inheritance of good points as well as of bad, the inheritance of physical attributes or defects, the inheritance of disease, neurotic and other, and especially of insanity.

The application of theory is carried out in very thorough fashion, and we read of all forms of transmission in abundant instances—too abundant, in fact. The taint starts, for the purposes of the story, from a very old lady, who is said to supply the neurosis. She was married to a healthy man, by whom she has descendants to the fourth generation. The few instances of neurosis in this branch seem to be as much due to importation as to direct transmission. After the death of her husband she cohabits with a “smuggler, addicted to drink and half-crazed.” From this illicit union a much greater amount of neurosis descends. Then the old lady becomes mad at the respectable age of 83. Is it right, therefore, to put the chief fault on her? Has not her lover quite as much to do with the bitter fruit on the family tree? We think so, and insist on this point because we conceive the working out of the tree to be founded on a wrong view of heredity. M. Zola places far too great value on the occurrence of insanity in a particular person. He seems to look on it as a positive evil which must have its way sooner or later, while, in truth, inherited insanity is a manifestation of a negative—a failure in the reproduction of a normal being. He is quite right in believing, and bringing home to the

reader his belief, that hereditary tendency to insanity is a thing not to be disregarded, but we consider that one of the serious failures in this book, as an agent of instruction, is in not giving equally full prominence to the fact that, unless the deterioration has gone too far, that which is wanting may eventually be put back by happy combination of the sound with the unsound. It is true that incidentally he does show that it is not absolutely necessary for the offspring of an insane person to be insane. Had he not done so the scene of his story would have been laid inside an asylum. But if, as we suppose, he wishes to convey a moral, he would have, in our opinion, best done his duty in helping humanity to repair its misfortunes by using his powerful pen to write also of the brighter side of the question.

M. Zola must have devoted a considerable amount of attention to medical books. Ataxy, phthisis, hæmatophilia, congestion of the brain, spontaneous combustion, Dr. Brown-Séquard's injections of "vital" fluids, even the lately discussed idea of injecting a decoction of sheep's brains, all find their place here, and add an interest which surely must be unhealthy to the ordinary lay mind. Nor has he stopped at pathology. In three instances he minutely describes the act and struggle of death, while in the case of spontaneous combustion he gives all the results that are said, on the authority of Marryat and Charles Dickens, to be usually found on such occasions. If he can bring himself thus far to war against tender feelings, why should he not have gone further, even to the post-mortem table, in search of materials for writing up death? What a scene could be drawn over the "sclerosis" and the "valves that give way" in the heart of the departed hero!

Speaking as alienists we protest against yet another unwarrantable strain being put on emotion; speaking again as alienists we protest even still more strongly against the subtle attack made by M. Zola on morality—that morality which is one of the conspicuous weapons needed for the fight against hereditary tendency to insanity. Plainly put; the motive of the tale is the seduction of a girl, in whose growing character the reader must, thanks to the author's art, needs take the deepest interest, by her own uncle—this famous and aged philosopher, Dr. Pascal—to whose care poor Clotilde had been confided. He rears her from childhood, forms her character, fights with her, masters her soul

by brutal violence, and then allows himself, with a few inward protestations, to take her away from a legitimate suitor. He might have married her (as is lawful in France) without in the least disarranging the "purpose" of the book, but then to be sure the book would have lost great part of its piquancy. We can hardly believe that M. Zola has been inartistic enough to have created such a vulgar crime as an instance of the power of heredity. We know that there are many Fausts among us, we hope that there are few Dr. Pascals, but whether there be few or many, we say that such an unblushing exposition of immorality is unpardonable. It is not even rendered useful. It may be old-fashioned, but we have an impression that a lesson taught us in our nurseries was a good one, viz., that sin brings more or less punishment or suffering in its wake. Here certainly the malefactor dies a painful death, but he dies in a halo of angina pectoris. He cares less for his sin than for the pathological condition of his heart. The girl, who certainly was content to live in sin, in spite of knowledge of what her sin was, is left nursing her love-child with every prospect of comfort before her. Nowhere does the author go out of his way to repair or offer atonement for the wrong he does to those of his readers who may happen to have pure minds. We close the book with a feeling that under a pretence of psychology the author has beguiled us into reading a story that we had better not have read.

Verslag van het Staatstozicht op Krankzinnigen en Krankzinnigengestichten en over den staat dier Gestichten in de Jaren, 1888, 1889, en 1890, aan den Minister van Binnenlandsche zaken opgemaakt door de Inspecteurs voor het Staatstozicht op de Krankzinnigen en de Krankzinnigengestichten in Nederland.

The triennial Report of the Inspectors in Lunacy in Holland has recently been published, and though the returns bear a date not later than 1890, a vast amount of most useful information as to the condition of the insane in the Netherlands has been crowded into its pages. The minuteness of detail is no doubt the reason for the delay in publication. This triennial method of issuing their Lunacy Report has been in vogue with the inspectors since 1878, and the system, though open to some objection, cannot certainly be disapproved of altogether when such excellent material as we find embodied in these pages is laid before us. It bears on the

whole favourable comparison with our own official reports, for it enters into matters of real interest to every alienist, and its style is one certainly more of honest and friendly criticism than of that carping *ex cathedra* censure we are so very much used to. The number of insane, and consequently the number of institutions containing these, it is true, falls far below that with which our Commissioners have to deal, and hence a more detailed review is possible, but it would be a most gratifying and refreshing change could we see a more comprehensive retrospect of the state of the insane in our midst than the stereotyped reports which are issued annually.

After dealing shortly with the working of the Lunacy Act, from which it appears that much difficulty is found in obtaining proper returns from private individuals who accept the charge of lunatics, a record is given of the cases reported to the inspectors of such patients who, being boarded out or being in private care, have been neglected, and of such who, though not certified, have been noted as being dangerous to or subversive of the public peace, and the list is a lamentably long one. The remark at the end of this section, "It is certainly painful to reflect that, though the reception of these patients into asylums in some cases has been, perhaps, hurried, and that financial pressure has been made to weigh somewhat heavily on certain parishes, the transference of these insane individuals for their own benefit and the benefit of the community has only been accomplished in most instances by enforcing the extreme letter of the law," is certainly regrettable, for it shows a lack of concern on the part of local authorities for the proper protection of their insane and themselves. The erection of a new asylum for South Holland appears to have involved the inspectors in manifold difficulties, which they detail at length, but from which they appear to have emerged successfully, the result being that a building is in course of erection capable of accommodating 200 patients, with facilities for enlargement to hold 500, and that another for the province of Groningen for from 200 to 250 patients is also in process of construction. The inspectors, moreover, show a praiseworthy keenness in keeping the various lukewarm provinces such as Friesland, Drenthe (for which plans of an asylum are under consideration), Zeeland, Limburg, Overijssel, Amsterdam (for a special Jewish asylum), and Leiden alive to the needs of their respective communities by advocating the erection of asylums for each. They give a detailed account of the structural and sanitary condition of existing asylums, the plans they propose for improvement and alteration, and their reasons for these last-named suggestions; the investigation of complaints by patients, and escapes form the subjects of special sections. During the three years eleven instances of suicide were reported in asylums, one by burning, four by hanging, four by drowning, one from cut throat, and one after escape by throwing

himself under a passing train. Fifteen instances of patients discharged as not being insane on admission are dealt with *in extenso*. Consideration of the strength of the staff in each asylum is the subject of a table giving the relative proportions of patients per attendant. Dietaries, too, are tabulated, but in a manner which would not enchant the ratepayer in England until that Utopian period shall arrive when private asylums shall be no more, for it gives classified scales of diet according to payments made in each asylum, for in Holland public asylums are largely used by the affluent. Tables are given setting forth the amount of clothing supplied weekly to each class of patients, and the household administration and spiritual care of the insane are also fully considered. Elaborate summaries, too, are furnished of the occurrence of infectious and contagious diseases in asylums, and the transmissible and hereditary diseases found among inmates are arranged for easy reference, while finally a compilation of adventitious diseases is given, from one of which tables it appears that during the triennial period 1887-1890 there were but eight recorded instances in all asylums of the occurrence of hæmatoma auris, a number which is certainly one open to doubt as to the accuracy of the returns in this particular. A review of the attributed causes of insanity in all asylums for the three triennial periods between 1882 and 1890 shows that alcoholic abuse maintains a fairly constant percentage as a causative factor of insanity (7·3), while in the two last periods there has been an increase in the percentage of cases attributable to purely mental causes, such as worries, anxieties, shock, etc. The inspectors deal also at length with the curative treatment adopted in various asylums, especially considering electro-therapeutics and hypnotism, quoting interesting instances of the effective employment of these agencies. Following this we have a host of tables setting forth the employment, recreation, and occupation of patients, tables as to prognosis, seclusion (in which the inspectors make no distinction between day and night isolation), and restraint (from which last we observe that at Meerenberg there has been no restraint employed for many years). The number of cases admitted into asylums during the three years (exclusive of transfers) was 4,227, the number of deaths 1,713, and the total of discharges 2,552 (of which 576 were discharged relieved or not improved, 597 were transfers, and 1,379 were discharged as cured). There remained in the seventeen asylums a total of 6,215 inmates on December 31st, 1890. Tables giving the distribution of patients in asylums according to their classes, setting forth, too, their social status, religion, occupation, degree of education, the varieties of insanity under which they laboured, their ages, duration of treatment, and the percentages of deaths to the number admitted, form an interesting and compendious summary extending over a large portion of this work. The report proper closes with a review of the treatment of idiots in

Holland, for which the inspectors urge that separate institutions should be erected.

From their general remarks we may quote the following :—"The mischief produced by the public exhibition of hypnotism, suggestion, etc., led the Government in 1890 to confer with us as to the advisability of instituting legal enactments prohibiting the employment of these agencies for purposes other than purely scientific . . . and we replied that it would be extremely desirable that measures should be adopted to counteract the evil. We therefore suggested that a law might be promulgated for the purpose of (1) interdicting all public displays pertaining to hypnotism, suggestion, and 'magnetism'; (2) limiting the medical employment of suggestion to therapeutical purposes only, and never without the presence of two witnesses, one of whom was to be a medical man; and (3) enforcing this by the imposition of severe penalties on each and everyone (including medical men) who might employ suggestion for their own individual ends, or to the detriment of others." A few remarks as to the instruction in psychology, wherein the inspectors urge the extension of University teaching in this branch of medicine, are certainly not out of place. This has been already effected in the Universities of Utrecht and Amsterdam, where special chairs for morbid psychology have been founded, but they very properly desire to see this useful work enlarged by the adoption of a similar course of lectures in the Universities of Leyden and Groningen.

The appendix of 86 pages deals with a comparative statistical review of matters relating to the insane from 1844 to 1890. Certain amendments to the Lunacy Laws, whereby various asylums are prohibited from receiving more than a certain number of patients, are quoted, and it would be well could this regulation be in like manner enforced in England. It would, perhaps, tend to rouse local authorities, just as it is at present doing in Holland, to a sense of the requirements of their respective communities. The report also contains a series of plans for a proposed asylum (Veldwijk), which is to be under the supervision of a religious community.

We must compliment the authors on their admirable Report; the safety and comfort of the insane have, to all appearances, received careful attention, and Holland certainly stands in the forefront of European nationalities in the humane and considerate treatment of her mentally afflicted, for the proper observance of which a large meed of praise may be accorded her energetic and able inspectors, Drs. Ruysch and van Andel.

Le Traitement des Aliénés dans les Familles. By CH. FÉRÉ.
Félix Alcan. Paris. 1893.

Any contribution to medical psychology from M. Féré is likely to be of value, and this little book on the family treatment of the insane forms no exception. He belongs to the school which would treat the insane in the country with the advantage of being well occupied in farm labour or other ways. It is stated that the Conseil Général de la Seine has decided to place out in this way 400 inoffensive senile demented. With regard to this it is rather difficult to understand how this class of patients are suitable for this location, however desirable it may be to eliminate them from an ordinary asylum. Many references are made to England and Scotland by M. Féré. At present the family treatment of the insane may take the form of a colony annexed to an asylum; a free colony; or thirdly, as single patients. Of the first, Altscherbitz, near Leipsic, is a well-known example. Claremont (Oise), while carried on by the private enterprise of the brothers Labitte, has presented a successful instance of economy. The author especially mentions under this head the colony of Ilten, near Hanover, founded by Dr. Whrendorff. "The system of Ilten consists essentially in the extension of the *surveillance* of the establishment, to which the patients may be returned at the shortest notice, the doctor having his eye always upon them. They may besides receive there special care and treatment. This mode of treatment costs little, the maintenance of each patient amounting to 337.50 francs annually, without any building" (p. 19).

That which M. Féré terms the "free" colony more especially represents the family system. That of Gheel, described by the author, is too well known to require description. He is speaking of this colony 25 years ago, before an asylum was established. An interesting description is given of another colony, that of Lierneux.

The so-called Scotch system is described by M. Féré.

After observing that experience in regard to the private dwelling system in Massachusetts has proved not less favourable than in Scotland, the author expresses his regret that in France the attention of the authorities has not been sufficiently directed to its importance. He thinks it is particularly applicable to the present condition of that country. He believes that there are plenty of persons who

would be willing to receive patients into their houses so long as they are harmless.

A judicial summary is given of the advantages and disadvantages of family treatment, the result being a favourable one. Let us see what inconveniences are alleged to attend a system, for which so much can be said in its favour. There is a danger of patients suffering from there being so much less supervision than in an asylum. It is not so easy to communicate with the physician. Again, the interests of the patient may suffer financially from his being imposed upon by his friends or strangers. It is quite evident that violent and dangerous patients, the suicidal, the homicidal, pyromaniacs, etc., may commit serious injury and bring discredit upon the system. For them an asylum is absolutely necessary.

Excellent practical remarks are made on the character of those taking charge of the insane. "What, above all, they ought to know is that their business is neither diagnosis nor treatment, but solely the loyal carrying out—the application—of the directions of the physician under whose charge they are placed, and from whom they should conceal nothing that falls under their observation."

We need not enter into the details, however important, which M. Féré notifies in reference to the points of observation, or the treatment and diet to be adopted. Nor is it necessary to dwell upon his observations on epileptics, the hysterical, or the convalescent.

In conclusion the author adopts the propositions brought forward by Magnan, and adopted by the International Congress, of "assistance."

(i.) The asylum ought to be regarded as a means of treatment and cure.

(ii.) Side by side with the asylum, family life and agricultural colonies ought to be as largely developed as possible, in order to lessen the crowding of asylums.

(iii.) The physician engaged in the treatment should indicate the forms of mental disease admitting of family life, and should supervise the agricultural colonies.

After-care associations are regarded as the most essential part of the whole system of treatment. Their number, it is urged, is insufficient, and the necessity of a general organization is insisted upon. Hence the "*Société Internationale pour l'étude des Questions d'Assistance*."

It must be admitted, no doubt, that the lunatic who has

recovered is frequently particularly excitable, and liable to outbursts of violence, involving a certain amount of danger, a fact that must not be concealed from those who employ him. As much liberty as possible, along with all possible guarantees, such ought to be the fundamental principle of After-Care Associations. It is suggested that a sojourn in a family of nurses familiar with the insane would constitute an intermediate stage during which convalescents who could not be placed out on leaving asylums might afford proofs of their fitness to enter into society. M. Féré holds that in cases where the insane leaving asylums recovered are placed in a convalescent home, in common with patients who have left ordinary hospitals, the arrangement is defective, and the result of a practice which gives little freedom is easy to foresee. If it should happen that a considerable number of caretakers receive, without being forewarned, ex-patients who involve them in risks, they will soon refuse without distinction all individuals who present themselves for admission after leaving a convalescent home.

Atlas of Clinical Medicine. Vol. II., Pt. 3. By BYROM
BRAMWELL, M.D., F.R.C.P.E.

This part maintains the excellence of the preceding parts of this important work. It deals with exophthalmic goitre, acromegaly, general exfoliative epidemic dermatitis, and unilateral hypertrophy of the face, and thus pipes some of the lesser tunes in the grand orchestral performance of Disease. Exophthalmic goitre is carefully considered and admirably illustrated. Under the ætiology reference is made to Gautier's classification of cases into primary and secondary, or into idiopathic and symptomatic, the latter being held to result from some obvious peripheral lesion, and upon this division Bramwell comments as to the impossibility of drawing sharply such a line; he thinks, however, that a practical therapeutic value may attach to the classification. This is no doubt a just view, for the idiopathic diseases, so-called, are everywhere suffering encroachment, proximate causes revealing themselves to the careful inquirer.

In a table modified from Charcot, the symptoms, multitudinous, of Graves' disease are enumerated. They are divided into primary, or cardinal, and secondary. The primary group is increased from the usual number, three,

viz., increased frequency of the heart's action, goitre, exophthalmos, to five, by the addition of the tremor, upon which Charcot laid special stress, and "a condition of nervous irritability and instability," or "general nervousness," which Bramwell considers to be a fundamental feature of the disease. The secondary group is too numerous for separate mention. Two cases are referred to which occurred in men, and in which the diagnosis of exophthalmic goitre rested upon habitual frequency of pulse, tremor, and general nervousness, in which symptomatology, therefore, the nomenclature of the disease was not represented. The description of the tachycardia present makes prominent the value of the pulse rate for therapeutic purposes: "It is important to note that the slowing of the pulse is perhaps the most certain sign of improvement which we possess. . . . The behaviour of the pulse under treatment is the most important guide for prognosis." Palpitation is, of course, a very common complaint of these patients, but the interesting remark is here made that subjectively this symptom causes much less distress than it does in those whose circulation is habitually equable—*i.e.*, that a healthy subject becoming attacked by palpitation suffers much more discomfort than a case of Graves' disease would experience for the same degree of actual heart hurry. Custom, we know, plays as important a part in physiology as in psychology, and perhaps this instance, having reference to subjective sensation, belongs rather to the latter. Since the days of myxœdema and its treatment by thyroid injection, exophthalmic goitre has received special attention, and the part played by the thyroid has occupied an increasing area of the field of vision. It has now been definitely settled that myxœdema results from deficient action of the thyroid gland; cases of exophthalmic goitre have been known to pass into a state of myxœdema, and coincidentally the gland has been found to have undergone atrophy from interstitial hardening; an overdose of thyroid extract given in myxœdema is liable to produce a condition like that of Graves' disease, in so far, at least, as tachycardia is concerned, and the conditions myxœdema and exophthalmic goitre may in many respects be regarded as anti-types; the thyroid gland in the latter affection has, in some of the cases, presented microscopical appearances suggestive of increased activity of the gland cells. It is on reasons such as these that the view, which gains ground, is based, viz., that many of the characteristic symptoms of the disease are due

to increased or perverted secretion of the enlarged thyroid. It is necessary to make the proviso "or perverted," for it has been found that the injection of thyroid extract has not increased the symptoms of Graves' disease, at least, in some cases, nor have the symptoms of exophthalmic goitre been produced in the healthy by thyroid feeding.

Under treatment we meet with nothing specially calling for remark.

The plates which illustrate the diseases treated of in this part are very excellent, though the acromegaly is perhaps over depicted, more especially in the life-sized line drawings of hands. A charming coloured plate represents old age in all its beauty of absent teeth and deep-lined wrinkles.

"Un Fou" par Yves Guyot. Paris, 1893.

It is rarely that we have read a more detestable book than the one under review. As its title indicates, it is a description of a lunatic, but from the beginning to the end it revolts one. To begin with, the unfortunate man, named Labat, has an insane mother, whose mother also was insane. He was wealthy and of good family, and is thus able to marry a beautiful but poor girl, who has two children, both of whom die in convulsions. A most truthful but horrible description of a fit is given, exact in all its fearful details. The mother determines to have no more children by her husband, and as the latter insists upon conjugal rights, she goes to the doctor, who is readily seduced by her, and a liaison is started, which results in the birth of a fine healthy son, who bears strong indications of his paternity. The putative father is jealous, and though he takes no open steps, he evinces his disgust, and the doctor, to save himself, calls in a medical friend, who is persuaded that the accusations against his medical ally are untrue, and who treats them as delusions, and on an urgency order consigns M. Labat to a "Maison de Santé," kept by an ex-marine medical officer, whose treatment is of the most downright and brutal kind; he has a belief in subduing disease by means of douches and strict discipline, the patient passes through a period of distress, and very nearly loses his reason, and the details of the life in the asylum are revolting and disgusting in the extreme. He determines to suppress his real feelings and to acquiesce in the doctor's

ideas, and as a result he is discharged cured. He rejoins his wife, who, receiving him coldly, causes further trouble, which ends in the murder of the child, and the flight of M. Labat. He is taken to another asylum, which is a private adventure asylum, where more brutality is exercised, and the patients are treated more as slaves than as sufferers from disease. Thence M. Labat, who has now become really insane, is taken as an insane criminal to Bicêtre, only to be tested and tortured with electricity. He once more is sent to the original "*Maison de Santé*," where in the end he is boiled to death in a hot bath by accident. Madame Labat has also become permanently insane, and so the story ends. Such a book is not only unhealthy, but it is mischievous in the last degree; it represents, as if occurring at the present day, a state of mismanagement in asylums which has disappeared for many years. It causes prejudice, not only against the medical profession as a whole, but more particularly against the special branch which we cultivate. It is an untruthful libel. The medical discussions on the symptoms of mental disorder are very exact, pointing to the handiwork of one who has had medical training. "It is a filthy bird that fouls its own nest."

Hygiene and Diseases of Warm Climates. Edited by ANDREW DAVIDSON, M.D., etc. Illustrated with engravings and full-page plates. Edinburgh and London: Young J. Pentland. 1893.

This valuable work consists of 24 chapters, each of which is written by one well acquainted with the subject. Two of them are written by the learned editor. Dealing with the diseases of warm climates, many of the maladies described are unfamiliar to practitioners in Britain, and none of them have special interest to the readers of this Journal save the chapter on goitre by Francis N. Macnamara, M.D. This paper gives a connected account of the prevalence and character of this affection in India, and the conditions under which it occurs. Goitre is principally met with in Northern India at the foot of the Himalayas, in the Delta of the Ganges, in the mud flats of Assam, and in the district of Multan. Dr. Macnamara tells us of places in which the endemic cause of goitre is so intense that a short residence often causes it to appear amongst the troops. Two stations

are mentioned in Upper Assam where a three months' residence insures a well-marked goitre.

Though the connection between goitre and cretinism is not closely traced, we meet with illustrations of the general truth that where goitre prevails cretinism also occurs, though more rarely. It does not appear that Dr. Macnamara has firmly grasped the generalization that goitre, causing a derangement of the functions of the thyroid, induces cretinism, as this gland seems to secrete a fluid necessary or useful for the due nutrition of the brain. We have been too long kept from recognizing this central truth by statements that goitre occurs where there is no cretinism, or that cases of cretinism occur in which, apparently, there is no affection of the thyroid gland. Such exceptions become rarer the more closely they are examined, and further examination will probably tend to reduce or explain them.

Dr. Macnamara tells us that in a number of cases of goitre in which the entire gland was removed "the patients showed no symptoms of myxœdema, a disease which, though looked for, is so far not known in India." It is not noted that the patients in whom the thyroid had been removed showed any of the symptoms of apathy and hebetude observed by Kocher and others in Switzerland, after similar operations, but it is evident that many of the cases in India were lost sight of after the wound had healed. Other chapters, such as those on beriberi and negro lethargy, are of interest to the neurologist.

The Asclepiad. By SIR BENJAMIN WARD RICHARDSON, M.D., F.R.S. 3rd Quarter, 1893.

The biography of Robt. Boyle, which this number contains, will be read with much interest, and is written in Sir Benjamin Richardson's usual felicitous style. The portrait which accompanies it adds another to the admirable gallery of portraits which alone would make the "Asclepiad" of permanent value. The first article in this number of the "Asclepiad" will be read with interest—"The moment for blood-letting"—seeing that Sir Benjamin Richardson can speak from experience of "the old and new practice." The conclusion arrived at is that venesection is useful now as formerly under the following conditions:—

(1) In acute spasmodic seizures, as in spasm of croup, in colic, and angina with symptoms of oppression from distension of the

right side of the heart with blood. (2) In acute pain, membranous or spasmodic, as in sudden pleuritic or peritoneal pain, or in pain from passage of a calculus, hepatic or renal. (3) In acute congestions of vascular organs, as of the lungs or brain, apoplexies. (4) In cases of sudden shock or strain, as after a fall, or a blow, sunstroke or lightning shock. (5) In some exceptional cases of hæmorrhage of an acute kind unattended by pyrexia.

Not that the condition of the patient must be disregarded. This, as well as the form of disorder, must be taken into consideration. The indications are: "When the veins are full and the pulse is firm, regular, full, tense; the pupils natural or contracted; the body at normal heat, or, with brain symptoms, raised in temperature; the bronchi free of fluid; and the sounds of the heart well pronounced."

In some of the above-mentioned attacks, as in sudden shock or after a fall, it is difficult to believe that these conditions would ever be present.

A number of reviews of recent works are given by the genial critic. We regret that this geniality leads the reviewer to speak with unqualified praise of Walt Whitman. We are sure that if Sir Benjamin knew as much as we do of the evil influence exerted by some of this poet's pernicious stuff he would have written differently.

May the "Asclepiad" long continue to issue from the productive literary workshop of so untiring a writer!

A Dictionary of Medical Science. By ROBLEY DUNGLISON, M.D., LL.D. 21st Edition. Edited by Richard J. Dunglison, A.M., M.D. London: J. and A. Churchill. 1898.

This edition of a favourite Dictionary has been, as correctly stated, thoroughly revised and greatly enlarged, with the pronunciation, accentuation, and derivation of the terms. There are close upon 1,200 pages, and the amount of laborious revision which the progress of knowledge demands is enormous. Absolute perfection in such a work cannot be demanded of an editor, and no doubt slight inaccuracies have been allowed to pass uncorrected in the work before us. For example, the first meaning of "Braidism" is given as "animal magnetism." Everyone knows, or rather ought to know, that this is precisely what it is not, and that, in fact, Braidism or hypnotism was a determined protest against

animal magnetism. The same regrettable mistake is made under "Hypnotism," which is defined as produced "through the influence of animal magnetism." There may be other instances of confusion among the innumerable definitions contained in this massive volume. We have looked up a number of words, and have found an extraordinary mass of information, fully justifying the statement made by the editor.

Although it makes no pretension to being a psychological dictionary, we can warmly commend it as an invaluable work of reference, and one which every medical man should possess, whatever department he may cultivate, for a lexicon like this is essential as the basis and groundwork of the particular knowledge which any specialist requires. For this he must refer to the special dictionaries prepared for him. In short, a general dictionary and a special dictionary supplement each other. Neither by itself is complete; both are essential to the man who cares to be abreast of the age in which he lives.

Index Pathologicus for the Registration of the Lesions recorded in Pathological Records or Case Books of Hospitals and Asylums. By JAMES C. HOWDEN, M.D. J. and A. Churchill. 1894.

Few men have applied themselves to the accurate notation of pathological appearances more thoroughly than Dr. Howden. He was amongst the first to investigate the lesions in the morbid brain, and for some forty years he has systematically studied the whole subject. His index cannot fail to be of the utmost value for the purposes of connotation and research. Everyone must have experienced the weariness of referring back to pathological records and case books for information as to special lesions and their relations to cases. This work affords a ready means of reference to recorded data regarding each particular disease or lesion. By its regular employment the pathologist of any institution can with the utmost ease analyse his records in a very short space of time. Say that he divides his autopsies into hundreds and notes the various lesions under the different heads, he can, on the completion of a series, almost at a glance note the frequency of each *per cent.*, can relate one with another,

and can refer to the individual career in which they have occurred. The list of lesions is very comprehensive. The only suggestion that can be offered is that in the next edition it would be well to interleave the book so as to allow of the introduction of notes on microscopic appearances. We have no hesitation in saying that the index should be kept regularly written up in the pathological department of every hospital and asylum, for with a *minimum* of work it gives a *maximum* of utility to the records of facts.

The Treatment of Degenerative Psychoses. By JULES MOREL, M.D. 1893.

This is a reprint of a paper read at the International Congress of Charities, Corrections, and Philanthropy, held at Chicago, June, 1893. Our readers may remember that Dr. Morel read an interesting paper on the psychological examination of prisoners at the Psychology Section of the B.M.A. at Nottingham, in 1892, his article being published in this Journal in January, 1893.

Dr. Morel in this paper urged the importance of *after care* for criminals as well as the insane. He holds that society does not take sufficient care to preserve malefactors from relapse. They feel themselves abandoned by those who ought to protect them in a social point of view. Often they are obliged to go to lodgings inhabited by the lowest class of society. They cannot easily find work again. Hence they are obliged to spend their time in bad company and even houses of ill-fame. They begin to drink, and before long they commit new crimes. They decline mentally also.

The difficulties are evidently immense. How few, if any, would knowingly take an ex-convict into their service? If this prejudice meets us even in regard to recovered lunatics, how much more so with regard to actual criminals? Faith, however, works wonders, and if Dr. Morel can overcome this objection, and if experience does not entail serious accidents from this course being adopted, we can only rejoice. This aspect of the subject treated by Dr. Morel is only one, but our space does not allow of our discussing other points, important as they are.

The Microscopical Examination of the Human Brain. By EDWIN GOODALL, M.D.Lond., B.S., M.R.C.S. London: Baillière, Tindall, and Cox. 1894.

We accord a hearty welcome to this manual. Those who are acquainted with the author, either personally or from the Pathological Retrospect which has appeared from time to time in this Journal, would be certain that no book with the above inscription on the title page would be other than a most painstaking and accurate production. Such a reader will not find his confidence misplaced. It is, of course, up to date, but this means up to the date of as careful and skilful a microscopist as it is possible to have. There is an excellent index by Dr. Craig, who was formerly on the staff of Bethlem Hospital. A work of this kind does not admit of quotation, and we must therefore content ourselves with referring the reader to Dr. Goodall's book itself.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect.*

Asylum Reports.

(Continued from p. 131).

Lancashire. Lancaster.—Additions are called for here, and it is intended to build blocks for nurses, for attendants, for working patients, and an isolation hospital. With regard to the latter the Commissioners in their Report express a hope that it will be of no large size, as the object is the immediate isolation of those first attacked, and not to deal with an epidemic. The admissions tell the same tale of hopelessness in a great proportion. The general paralytics only account for about 6 per cent., and intemperance for about 12 per cent. Dr. Cassidy does not approve of large transfers of patients from one asylum to another, as they upset a place for a time, and give no solid advantage. Three patients were discharged, their orders having lapsed. He justly stigmatises the arrangements under which this occurred as silly and childish.

Several features of relations are perhaps noteworthy. An uncle and nephew were admitted, an aunt of the latter being already a patient here. Two brothers came together, both acutely maniacal, and with the same or very similar delusions; two sisters, at different periods; a mother and daughter acutely maniacal and admitted together; aunt and niece in two instances; a daughter who found her mother here; in three instances, wives whose husbands were either here now or were recently here; and first cousins in several instances. We

have many patients here whose parents or grandparents were here formerly, but in that way history repeats itself in every old asylum. One man (T. B.) was said to have become insane through the effects of a railway collision which occurred 15 years ago. He received compensation from the railway company, but tells me that he suffered ever afterwards from nervousness and despondency. This is the second case of insanity following a railway accident shock after a long interval which I have come across. A girl (W. B.) became insane through the shock of the fire at the Barrow Jute Works, where she was employed. A girl (M. T.) was seduced by her father and had a child. She became insane after its birth, and no doubt the moral impression, combined with the physical disturbance, combined to produce mental disease. Three women were on their way to America, but became excited and lost their mental balance before embarking. Perhaps a little drink might have had a share as well.

Lancashire. Prestwich.—From this asylum alone, we believe, are patients sent out by contract to a workhouse under section 26 of the Lunacy Act. Forty of each sex have been sent to the Rochdale workhouse. It will be interesting to hear later on how this experiment has answered. It is a kind of compromise between those who object to the insane being left in workhouses and those who object to asylums being choked by chronic and harmless cases. As the Act permits the 4s. grant being paid by the County Council in respect of such cases, the Guardians who are interested are not likely to raise objections, while the arrangement has this advantage, that the suitability for transfer to the contracting workhouse is in the hands of the medical superintendent of the asylum sending the patients, who can recall individual cases at a moment's notice if necessary. There is this other point to notice:—That any workhouse can contract to receive patients from any asylum, of course under proper regulation of the Commissioners. In this respect there is more elasticity than is shown in Sect. 25, which only permits discharge (not transfer) of an individual patient to the workhouse of the Union to which he is chargeable. We cannot help thinking that eventually the procedure under Sect. 26, when sufficiently tried, will prove to be one of the successful ways of remedying the ever increasing block in county asylums. But we foresee this danger, that if workhouse authorities thus contract and make provision for a considerable body of patients, they may find the means so provided very handy for treating on their own account recent cases that should go to the asylum. We do not mean that they would treat them in the same wards, but it might occur that the presence of skilled attendants would help them to tide over the little trouble that so often is the only reason why patients are sent off to the asylum.

An average residence of over 2,300 with eleven admissions every week mean ceaseless activity to the medical staff, and it must be a source of satisfaction to Mr. Ley that he can show percentages of recoveries 53, and death 7·88. Of the latter (183) no less than 57 were due to general paralysis. More than one

half of the admissions were first attacks and less than three months' duration, while only one-fifteenth were of more than one year's standing. It cannot be said that workhouse dementals have rushed into the asylum; on the other hand, these figures amply prove terrible activity. About one-sixth of the admissions were due to intemperance.

Lancashire. Rainhill.—Decoration has been completed in the annexe, which several members of the Association had the opportunity of inspecting during the meeting at Liverpool last year. Vast building as this is, as vast as the parent asylum, yet both are quite full. Dr. Wiglesworth makes the following remarks about general paralysis, which caused 17 per cent. of the admissions and 30 per cent. of the deaths.

There seems reason indeed to believe that not merely is this disease more frequent now than formerly, but that it is also tending to appear at an earlier age than has, until lately, been thought possible; thus one of our female cases last year was only 18 years of age at the time of death, the disease having commenced about four years previously. General paralysis is essentially induced by overstrain of the nervous system, whether such strain be brought about in the pursuit of wealth or pleasure, or in the keen struggle for existence entailed upon so many of our race. And whether or no the disease be actually on the increase, there can, it is to be feared, be little doubt that with the constant straining effort which modern civilization entails, we are not likely soon to see a diminution in the sufferers from this fatal malady.

By alcoholic intemperance 43 per cent. of the admissions were caused. Great interest is taken here in the training of the nurses and attendants.

Lancashire. Whittingham.—Dr. Wallis hopes, in his report, that any legislation directed against drink will include provisions for ensuring the wholesomeness thereof. The quality of the liquor now sold is frequently as bad as it can be. For reasons stated with force and shared by many of his colleagues, he would like to see either the reduction of the grant of 4s., or the making of a small allowance to the Guardians for those cases of chronic insanity that may be kept in workhouse wards specially constructed for the purpose. There has been a notable increase of pulmonary tubercular consumption. He would like to have every case isolated as soon as recognized. He thinks that possibly the increase may be connected with the presence of tubercle in the cows which supply the asylum with milk, and fresh arrangements have been made at the farm in order to get rid of the disease there.

The passing of the plans for our hospital extension by the County Asylums Board is a most gratifying circumstance, and the plans, which have been approved by the Commissioners, will shortly obtain the consent of the Home Secretary. I hope we shall soon be at work on the foundations. The buildings, when completed, will give the recent cases every chance of recovery possible, and enable us to classify our patients in the most satisfactory manner. I have commented so frequently and at great length upon the necessity for this extension and its good features that I need say nothing further here than this:

that every large asylum ought to have a separate department for its recent cases. Moreover, I wish to record my conviction that the great and, to my mind, the only objection to a large asylum, say, of 2,000 or even 3,000 inmates, would be removed were the buildings so disposed that the community was broken up into small sections.

The recovery-rate and death-rate are 20·49 and 9·19. As to the former we note that, as is usually the case, an abnormal number of admissions has had a lowering effect. Drink caused the trouble in 113 out of 483 admissions. General paralysis was found in rather less than 10 per cent.

Leicester. County.—General paralysis occurred in four out of the 125 admissions, and intemperance was assigned in thirteen cases. Two-fifths of the admissions were first attacks, and of less than three months' duration.

Leicester. Borough.—The low death-rate of 4·4 in 1891 was followed by 5·6 in 1892, and, as Dr. Finch points out, this means an increase in aged and debilitated cases. Proof thereof is found in Table VIII., by which it appears that out of 494 residents 209 are over 50, 105 are over 60, 43 over 70, and 8 over 80, the mean age of all residents being 47. The Commissioners urge that as small-pox is very rife in the borough, new cases should be isolated, and also that all cases not bearing good marks should be vaccinated or revaccinated. But we are afraid that Dr. Finch's hands are much tied in such a matter by the peculiar views of Leicester about vaccination.

Lincoln.—As at Denbigh, the satisfaction of the urgent claim for more asylum accommodation is delayed by variance of opinion between five contributing parties ending in a dead-lock. So the partnership is dissolved, and each party can make its own arrangement. There are not now many such combinations remaining, but in case of similar difficulty arising this instance shows how readily a reluctant minority can be passed by. Rates of recoveries and deaths were both well on the right side of the average. 41·0 per cent. of the admissions were suicidal, and nearly half of these had made recent attempts at self-destruction. One patient was admitted who turned out to be the property of another asylum from which he had been freed on probation. He had thus the unique honour of having two sets of legal documents attached to him.

London. County.—The report of the London County Council, dealing as it does with a regiment of officers and an army corps of patients, is indeed a portentous compilation. Large as it is, however, its contents are so well coded and indexed that they are easily dissected, though the figures are in themselves gigantic. The Committee has set out with the intention of "effecting uniformity in the various details of general management which from experience we have come to regard as an essential factor in the effective conduct of the important and responsible charge committed to us." Such uniformity is not only necessary, but

absolutely right in principle. There is, however, in uniformity the danger of attaining a dead level of mediocrity. With the splendid opportunities at hand mediocrity would be a disaster, and we are glad to affirm that it will not be permitted by the Committee. Everywhere we find evidences of liberality, not only in action, but in views—a seaside asylum, a special pathologist, with every endeavour to forward this branch of work even to obtaining through the Foreign Office details of the practice of pathological research abroad, applications for the recognition by Medical Boards of the London Asylum as teaching hospitals, and so forth. The Committee has been considerate enough to negotiate with the Post Office for the attendance at each asylum on pay-day of a savings bank official. It is a source of real satisfaction and ground for congratulation that the word “progressive,” so often heard in a certain connection, should be written in unmistakable characters across the pages of this report.

An instance of the benefit of concentrating work is found in the result of appointing one officer to do nothing but hunt out “settlements.” Accrued charges recovered and future charges avoided, amounting together to £1,490, are put to the credit of the Committee at an expense of £242, the salary and expenses of the officer.

The number of patients dealt with are as follows :—In London asylums, 8,139; in other asylums under contract, 1,345; in other asylums by arrangement with unions and parishes, 241; in licensed houses, 1,298; in workhouses, 239; with relatives, etc., 261; total, 11,335 (an increase of 343 over the previous year). To these must be added the residents in Metropolitan District Asylums, total 5,820 (an increase of 96). In the standard dietary, which appears to be liberal, there is no mention of beer, but milk or lime-juice is given to workers.

A comprehensive scale of pay and emoluments attached to every office in the service seems to be liberal. We do not find any mention of a pension scheme, but we judge from the superannuations already granted that the Council recognize that good service can only be obtained by good remuneration, both current and prospective.

The statistics follow mainly the lines laid down by the Association, and are given in a most convenient form. Each of the twelve tables is applied to each of the four asylums and is also summarized. It is a matter of great regret that Tables V. and X., those relating to the causation of the insanity and the causation of death, cannot be summarized on account of the asylums giving different details. We suggest that uniformity is invaluable here. Endless labour is caused to the statistician who wants to get at the broad issues. The recovery and death-rates are not far away from the averages of all county asylums.

We note that among the 2,929 admissions only one is returned

as "not insane." General paralysis claims 279 out of the above number of admissions, 20 per cent. being females, and it accounted for 189 out of 814 deaths, and of these 20 per cent. also were females. Phthisis carried off 102. The mean age of residents at the end of 1892 was 46.11. Over 10 per cent. of the admissions were ascribed to intemperance. We observe that all the medical superintendents refuse to classify any cases under the head of insanity with delusions or hallucinations, no doubt preferring to include them under the old standing broad divisions and their sub-divisions. Turning now to individual reports for points of interest:—

At *Banstead* we notice several changes in the junior medical staff. Influenza was returned as a cause in many cases, which were chiefly of the melancholic type. Out of over 2,000 cases at the end of the year Dr. Claye Shaw can only reckon 33 as curable. But for the year he has the satisfactory recovery-rate of 46.97, and says:—"Whether directly connected with it or not, it is worth noting that the high rate (during the past two or three years) has been coincident with the abolition of beer as an article of ordinary diet. It is very certain that the patients take their food better since the beer was stopped." The operating-room maintains its usefulness, Dr. Shaw having had several serious operations.

At *Cane Hill*.—In their report the Committee remark that considering the provocation often offered to the attendants they have no reason to think that the treatment is other than the kindest. There have been several changes in the medical staff. Dr. Moody records with great pleasure that 686 patients were recalled and brought back to the asylum without the slightest mishap, scratch, or bruise. Of these nearly 200 travelled from Lancashire. He was unable to certify 25 transferred patients, because they happened to be recurrent cases, and at their best when the time arrived for his certificate. This is one of the beautiful points of lunacy law; the liberty of the subject rises superior to all considerations of what is best for the individual and for the public.

At *Claybury*, which has taken five years to build, Dr. Robert Jones has assumed chief office. Drs. Stansfield, from Banstead, and Wills, from Rainhill, have been appointed as first and second assistants. Mr. Hine, the architect, gives an interesting *résumé* of the building operations. Patients, windows, and bricks are reckoned by thousands; sites, floorings, and slates by acres; sewers and water-pipes by miles. It is truly a wonderful place to be built all at one time. Admission of patients was to begin last May.

At *Colney Hatch*.—We notice with regret that Dr. George, first assistant medical officer, died after twelve years' service. Consequential promotion of the junior medical officers took place. 23 per cent. of the admissions had had previous attacks. 46

deaths were due to a severe epidemic of influenza. Dr. Seward says that the class of cases sent to him becomes more hopeless each year. Fourteen nurses obtained nursing certificates.

At Hanwell.—Dr. Alexander notes that the past year has been uneventful. After three years' experience of the Lunacy Act, with every wish to give it fair play, he is ready to join in the chorus of condemnation of its recertification provisions. We cannot but regret that at the Oxford Quarterly Meeting this mischievous Act should have found defenders, and even in its weakest point. Classes for training attendants are being held.

London. City of.—Dr. White seems to have had more than his fair share of zymotic troubles. Two separate attacks of influenza, by which seven patients lost their lives directly or indirectly, caused much anxiety and serious illness. Dr. White isolates his cases at once, believing the disease to be distinctly infectious. Then small-pox broke out just outside the boundaries, and on this account everyone—patients and staff—was vaccinated, and the disease was warded off. Beyond these trials came two or three cases of typhoid fever, which have led to a revision of part of the sanitary arrangements. Among the admissions—which were twice as numerous as in the preceding year—14 per cent. were general paralytics, and 25 per cent. were due to intemperance. The recovery-rate was 28 per cent.—much below the average. Dr. White presents his more important figures from year to year in the useful shape of charts. By these means it can be easily demonstrated that a high rate of admission is almost always accompanied by decrease in recoveries. To a certain extent this might be anticipated, as many of the admissions might not ripen into recovery during the current year. But the impression left from the charts is that large additions to admissions are more in the direction of chronic than of fresh lunacy. Dr. White carries on conscientiously the work of training nurses, in which he was one of the first to move before the adoption of the present scheme of the Association.

Middlesex.—A curious feature in the 306 admissions into Wandsworth is the fact that only 14, or less than 5 per cent., were general paralytics, while only 22, or 7 per cent., were due to intemperance. An annexe for idiots has been sanctioned by the authorities. As there were upwards of 60 idiots in the asylum or boarded out in other asylums a sufficient population is insured at once, and some relief to the main asylum will ensue. An asylum would seem to be the last place where trade unionism would cause disturbance. Nevertheless, here it penetrated, being imported by some outside hands taken on for building purposes. This has led to a rearrangement of the wages of the artisans, though the old hands with one exception remained loyal. The operation of "The Queen v. Dolby" presses hard here, eightpence per week being added to the weekly cost of maintenance.

Monmouth, Brecon, and Radnor.—The admissions (190) included 11 general paralytics, and 16 to be attributed to intemperance. The Commissioners in their report consider that with an average residence of over 900 a third assistant officer is required. Dr. Glendinning, in addition to the usual statistical tables, gives two others which show in apposition the yearly number of lunatics in the district—(a) who are in the asylum, and (b) those who, though chargeable, are not in the asylum. As these tables go back year by year to 1855, the growth of the total pauper lunacy in the district can be clearly traced. One cannot see that the institution of the 4s. grant in 1874 had any appreciable effect in transferring cases into the asylum. In fact, a tendency to decrease in *extra*-asylum lunacy has shown itself only in the last two or three years. The *intra*-asylum population has steadily increased, but apparently this is chiefly in the more important urban centres.

Norfolk. County.—Among the 178 admissions there were 13 general paralytics, and in the same number of cases was intemperance assigned as the cause. Dr. Thomson keeps each year against those responsible a score of the cases of preventible disease, for which he is to be commended. Nothing can bring home to a Committee more forcibly their duty in providing proper sanitary appliances than statistical evidence of the result of neglecting that duty. Happily in the past year the scoring is not very heavy. We might suggest that phthisis, if of considerable frequency, would also be advantageously included. As we have pointed out in dealing with the reports of some other asylums, this disease may be regarded as a fairly accurate index of the sufficiency of warming and ventilation. Dr. Thomson remarks that only one out of 23 contributing unions have sent deputations to see its patients.

Newcastle. City.—As might be expected in such a toiling and teeming population, general paralysis makes a mark on the admissions, about twenty per cent. of the latter being due to this disease. But it is somewhat startling to find that nearly one-third (seven in 23) are females. As the table relating to the form of mental disease is not given in its complete form, we cannot see whether this is an exceptional circumstance, or whether it corresponds to the total number of cases resident. Intemperance caused about 25 per cent. of the admissions. Extensive additions are in contemplation, including a detached house for Dr. Callcott.

Northampton. County.—General paralysis does not seem to be an important factor in the causation of insanity in the county, only eight cases occurring in 182 admissions, while of the 863 patients left at the end of the year only six came under this head. On the other hand, however, out of the same number—864—144 were epileptic, and 115 suffered from congenital defect, unassociated with epilepsy, and no less than 230 are classed as secondary and senile demented. About 10 per cent. of the admissions were due to alcohol.

A striking feature at this asylum is the number of out-county and private patients residing there—238 and 46 respectively. From the former a profit of £6,350 arose; from the latter £983. The authorities are thus substantially rewarded for looking ahead in providing for more than present needs. We think, however, that perhaps the private patients might have more spent on them in terms of Sect. 271 of the Lunacy Act. It appears from the accounts that the receipts in respect of their maintenance were £1,861, and that the excess over the weekly charge being £983 (well over 50 per cent.), was handed over to the County Council. We conclude, therefore, that nothing extra was done for them either as to accommodation (Sect. 1), or other "outgoings or expenses" (Sect. 2). It further appears from the report of the Committee that £5,150 have been handed over to the County Council from the asylum since the incoming of the Local Government Act.

The Commissioners advert in their report to the hardships of patients being sent far away from home if they have friends by whom they can be visited. We quite think that strict supervision should be kept over the selection of cases for out-county contracts. This would, of course, concern the Guardians of those unions whose patients were sent out of the county.

Northumberland.—Among the 141 admissions are found 15 cases of general paralysis, three being those of women. Alcohol was the assigned cause in 31 instances. Touching this last Dr. McDowall attributes his satisfactory recovery-rate of 47 per cent. to the "number admitted suffering from acute insanity following excessive drinking. This class of patients, as a rule, readily recover, and thus materially assist in producing a recovery-rate which looks well on paper, but of which no person accustomed to the treatment of the insane would think of boasting." We cannot quite follow him in his modesty, for a recovery-rate is nothing if not comparative, and are all other superintendents as candid? As in other asylums, the occurrence of intestinal disease fixes attention on possible sanitary defects, and disease of the chest on the condition of the warming and ventilating apparatus. More than half the nurses and attendants reckon five years' service. Dr. McDowall pushes forward the training instituted by the Association. He says that by such means a bad attendant cannot be changed into a good one, but experience shows that a good attendant can be improved, to the benefit of the patients under his charge. A considerable sum of money is to be spent on sanitary improvements, mortuary, etc. As presumably this has to be borrowed, the sanction, after local inquiry, of the Local Government Board is necessary, in addition to the sanction of the County Council, Lunacy Commissioners, and Secretary of State.

Norwich. City.—The Committee speak of Dr. Harris's work with great cordiality, and throughout their report show a kindly interest

in all connected with the asylum. This is as it should be, and must lighten the burden of responsibility as regards the staff, and increase the comfort of the patients. We hope that Dr. Harris will soon be able to see his way to adopt the Association's statistical tables in their entirety. At present comparisons on important points cannot be made with other asylums. One patient, convalescent, escaped, and a few days after returned the asylum clothes, with a letter of thanks for kindness received during his treatment.

Nottingham. County.—The county is burdened with an inheritance of an old-fashioned and badly-situated asylum, on which common prudence forbids the expenditure of any money except for ordinary repairs. The question of building a new one is being discussed. Notwithstanding the drawbacks Dr. Aplin can point to a recovery-rate for 10 years slightly above the average. But the death-rate (calculated on the total number under treatment) is as 10·66 to the average of 7·94 in all other county and borough asylums. This difference is accentuated if the other mode of calculation is adopted, viz., by taking the average number resident. Then the proportion is 13·81 to 10·11. About 20 per cent. of the admissions were due to alcohol. In the table showing the forms of insanity there is no entry of general paralysis, though it occurs in six of the deaths. Seven deaths out of 46 were attributable to acute pneumonia.

Nottingham. Borough.—The character of the admissions was very unsatisfactory, 40 per cent. being absolutely hopeless; 28 general paralytics—one quarter being women—came in, and 24 alcohol cases—the total admissions being 158. Mr. Powell attributes an increase in admissions to depression of trade, and thinks also that the prevailing epidemic of influenza had considerable influence by way of so reducing resistive power as to render it more difficult for people to withstand the ordinary causes of insanity. A female general paralytic gave birth to a child shortly after admission. What will that child's future be? Great attention is paid to the training of nurses and attendants, on the lines of the Association's scheme.

Oxford. County.—Among the 133 admissions, six were cases of general paralysis, but among those remaining there are 18 cases, while the deaths were five. These figures suggest that the asylum life of a paralytic is longer here than at most other institutions. Intemperance claims just one-tenth of the admissions. In the Commissioners' report is the suggestion that the caution cards for actively suicidal cases should be differently coloured to those in whom the tendency is only suspected.

Plymouth. Borough.—This is the newest asylum at the present date, the report for the past year being its first. The Medical Superintendent, Dr. Davis, late assistant at the Dorset Asylum, prefaces his report with a short account of his new field of work, giving some useful particulars as to structure and plan, strength of staff,

fire appliances, etc. Of course, the figures concerning the patients are not of sufficient standing yet to convey much information, but we are pleased to see that Dr. Davis has laid his tables out on the full scheme of the Association. There are still small difficulties to overcome, but we have no doubt that he will be able to cope with them, and we wish him success. The Committee points out that while its asylum is the smallest in the kingdom, it is itself the largest Committee, and hopes that it will be reduced. The Commissioners, who have paid two visits, speak well of the aims and management of this institution.

Portsmouth.—This asylum is becoming over-crowded, though it is but thirteen years old. The Committee are contemplating additions. The recovery-rate, nevertheless, was high—48 per cent.—this, no doubt, being due to the admission of fewer hopeless cases than usual. Twelve cases of general paralysis occurred in 105 admissions, and alcohol was the assigned cause in 14 instances.

Salop and Montgomery.—Among the admissions (221) only nine cases of general paralysis occurred—six male and three female; 28 cases were due to intemperance. The leave of the male staff has been increased, and the Visitors have instituted a capital plan of giving to each charge-attendant a sum of £2 per annum over and above the limit of the wages if Dr. Strange advises them to do so. We have great faith in such extra payments, whether they be large or small. The recipient feels that he has done something, and must continue to do something, out of the ordinary. Besides, these voluntary payments furnish a good method of visiting by their withdrawal offences which can hardly be passed over, and yet cannot be punished by other means than discharge.

Somerset and Bath.—Notwithstanding that there are 867 patients in the asylum, it is found necessary to board out over 100 in other places. The admissions were very high, and Dr. Wade cannot say that he found any undue proportion among them who might have been accommodated in workhouses. Suicidal melancholia was a very prominent feature; on the other hand, the death-rate was abnormally low, 6·7 per cent. General paralysis supplied only eight cases in 251 admissions, and alcohol 17. Teaching and training of attendants is systematically carried on. In their report, the Commissioners, adverting to the difficulty of finding vacant space in other asylums, suggest that two large houses should be rented for the accommodation of surplus population.

Stafford. County.—In scanning, as we have done with other asylums, the figures relating to the occurrence of general paralysis among the admissions to both the asylums belonging to this county, we are much struck with the fact that the incidence of the disease is far from coming up to the average of all England. We look less to rural districts for it than to busy centres, where human beings press together, where filth and insanitary conditions overcome Nature's sanitation, where contamination, both moral

and physical, meets with least resistance; in a word, where life is carried on under the worst conditions. A district that contains such centres as Dudley, Leek, Stafford, Stoke, Stourbridge, Walsall, Westbromwich, and Wolverhampton should form a fine field for paresis, at least if our shadowy ideas as to its etiology have any truth at all in them. But the reverse is the case.

—	Ratio of General Paralysis to Total Admissions.			Causation of Insanity by Alcohol in Total Admissions.			Causation of Insanity by Alcohol in all cases of General Paralysis admitted.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
All England—Commissioners' Report, 1890 (average for 10 years to 1888) ... }	13·7	3·2	8·3	19·7	7·1	13·8	24·2	15·1	22·4
Stafford and Burntwood Asylums (1892) ... }	8·8	4·8	4·8	18·9	5·3	12·4			

The first columns show clearly that general paralysis does not necessarily follow in the wake of unhealthy and restless aggregation. It is curious also that, in a district where woman takes on herself so much of the hard physical work of man, and in that respect might be supposed to expose herself to the liabilities of man, the average of female paresis should depart from the average so much farther. We add the second set of figures to show that alcohol (which is shown in the third set to be a principal factor of general paralysis) exerts nearly the average power in producing insanity of all kinds. It should be noted that the ten-year average figures given above do not probably represent the actual incidence of general paralysis now. Five years average to 1888 showed an increase from 8·3 to 8·8; and as five years have elapsed since then it is fair to suppose that the average has still further risen. If so, the figures for Staffordshire would be still more divergent.

At the *Stafford* Asylum we note that fresh accommodation is called for, 120 patients being boarded out. An isolated infectious hospital has been decided upon.

At *Burntwood* Dr. Spence complains of the feeble health among the admissions, the majority requiring careful nursing from the outset in the infirmary wards. He is glad, therefore, to state that active steps will shortly be taken to provide a suitable hospital thoroughly well equipped for nursing.

Surrey.—The county is in the happy position of having more room than it wants for its own people, while it has all that it does not want filled up by profit-bearing out-county patients. Dr.

Barton, like others, has to complain of the increasingly unsatisfactory character of his new cases, only a bare third having a fair chance of recovery. About nine per cent. were general paralytics. Alcohol was the alleged cause in more than ten per cent. One female was discharged as recovered after 25 years' residence; 80 per cent. of the patients are employed. The classes of instruction for attendants have been well attended, and have met with encouraging results.

We are glad to append an extract from the Commissioners' report on Brookwood. It is a statement as true as it is broad-minded.

The discharge of his duties by the medical superintendent of a large asylum in a satisfactory manner cannot fail to be a strain mentally and physically, and we can appreciate how much it is aggravated or diminished by the character of the staff under him. We are very desirous to see higher qualifications for their work in asylum attendants throughout the country, but this can never be realized unless Committees take into consideration not only the gradual rise of wages in every direction, but the peculiar demands upon the patience, tact, and even physical strength (for the hours of duty are long) of attendants in asylums. We would also repeat that the medical staff should not be starved in numbers if thorough medical work is sought.

We may point out that there is a serious discrepancy between the statement at p. 11 that the admissions of general paralytics during the year amounted to 25 (20 m., 5 f.) and the number given in Table XI., namely, 5 (4 m., 1 f.). Also in Table IIa. the net recovered persons should be 22·55 and not 23·60.

Suffolk.—The report of this asylum is indeed sad reading. The sole pleasure that can be found in its perusal is supplied by the open and fearless manner in which Dr. Eagers speaks of the obvious and avoidable shortcomings of the institution. The Visiting Committee "regret" that the County Council has not yet supplied funds for carrying out work sanctioned long before by itself and all the authorities—infirmaries, escape staircases, etc. The Commissioners have from year to year condemned certain parts of the asylum as not fit for occupation. But it is left for the medical superintendent to tell the county authorities that "only the financial bankruptcy of the county could be accepted as sufficient excuse for lodging our patients in such cold, dark, damp, rotten sheds." This is in reference to No. 6 Dormitory, of which he also writes:—

It is badly lighted and ventilated, the floor is patched, and the joints crumbling from age, being below the level of the outside ground, and the roof, owing to its construction, leaks and allows the rain to pour down upon the beds in stormy weather. The wooden sheds for the sick, so often condemned as utterly unsuitable for infirmary cases, or even for any other class of cases, are still in use, the accommodation intended to be provided for these cases in the new buildings just commenced not yet being available. The erection of these blocks has been delayed two years owing to lack of means through a flaw in the Local Government Act, 1889. During the summer just past the temperature in these

sheds was unbearable, and the sufferings of the patients, especially those lying in bed in acute stages of illness, were distressing to witness.

We have a considerable knowledge of the shortcomings of the Local Government Act; but it is impossible to allow it to bear any blame in this matter. We should conclude that this state of things was in existence years ago. We are sure that in no other asylum in England is there accommodation of which such terrible things could be said. They take us back to Blue Books of fifty years ago. So, too, with other dormitories. A proportion of 32 per cent. of the deaths is attributable to phthisis, and Dr. Eager, in connection therewith, points to lack of warming and ventilation. In twelve years there have been 1,001 cases of intestinal disease, typhoid, dysentery, etc., resulting in 138 deaths. Certainly a new water supply has been procured, and temporary relief from typhoid resulted; but after the lapse of nine months Dr. Eager was disheartened by its reappearance. "The mortuaries and post-mortem room are still in the same beggarly condition." The slaughter-house is not even fit for the slaughter, nor are the pig-sheds fit for occupation by pigs!

It is very apparent that nothing but a determined and liberal rehabilitation of the whole institution can bring it up to the level of what an English asylum should be. We have much sympathy with Dr. Eager and his staff in their fight with preventable disease and suffering, and on this account we feel less disposed to cavil at the small amount of work done on the statistical tables. Nevertheless, we hope that when he has received the aid of suitable arrangements, to which he is clearly entitled, he will find time to complete that which is now unfortunately wanting.

Sussex.—For years past Haywards Heath has been overcrowded, this no doubt being due to the difficulty of getting three separate bodies to make up their minds as to how to obtain increased accommodation. One of the three has now retired, West Sussex electing to build a new asylum for itself. But even now Dr. Saunders foresees that by the time West Sussex has got settled in its new quarters the other two, East Sussex and Brighton, will have to dissolve partnership. He says that the number of deaths from phthisis is 17 in 123, and points to the necessity for increasing cubic space by reducing the number of patients. About eight per cent. of the admissions were general paralytics, and six per cent. were attributed to intemperance. Nearly 50 per cent. are classed as hopeless, and less than a quarter as having a good chance of recovery. Thirteen cases were above 75 years of age.

Several attendants were prepared and sent up for examination, and all obtained certificates, which were presented to them by the Chairman. We note that each year a *fête* is held to commemorate the opening of the asylum. We should have thought that this was a subject of congratulation for those outside rather than for those inside the asylum; still it is a great thing to have one day

set aside for general enjoyment. Several pensions have been granted. We are pleased to see that, in addition to the tables of the Association given in complete form, several other tables of useful information are given, *e.g.*, summary and detail by unions of the disposition of all pauper lunatics in the county, the financial history of the buildings, etc. These are far more useful than the detailed statements of the shirts and petticoats made in the year, which, contrary to prevalent custom, are happily omitted here.

Warwick. County.—Additions are called for and are to be made. The female department is overcrowded. Dr. Miller pays great attention to the training of the attendants, and records that the improvement in sick nursing is very marked. He also hopes to derive advantage from the Report on Dietary recently presented to the Association. The improvement in the sanitary arrangements has been followed by a diminished death-rate. More than half the admissions were hopeless. The remarks we made when dealing with the incidence of general paralysis in the Staffordshire Asylum apply here, but not quite so forcibly, the proportion being a little over 6 per cent. on the admissions, the same ratio obtaining for causation by intemperance. The Committee have adopted the sensible plan of sending Dr. Miller with one of its own body to inspect recently-built asylums with a view to obtaining the best and newest ideas for the provision of further accommodation.

Wiltshire.—We note that the Committee have endeavoured to discharge patients to workhouses under both Sect. 25 and Sect. 26 of the Lunacy Act. They invite Guardians to send a deputation to visit the asylum at least once a year. The medical superintendent states an interesting fact, that whereas women were a few years ago admitted in a proportion of two to one as against men, now men are in excess. He also points out that those counties which have the highest proportion of insane to sane are with one exception purely agricultural districts. Wiltshire was recently third on the list; now it is fifth. The last census shows a falling off in the population of rural districts. He remarks that the objection to post-mortem examination is strongest in those friends who have ignored patients during life, and thus appear desirous of making a final show of previously neglected affection. Both general paralysis and intemperance were responsible for about 8 per cent. of the admissions.

Worcestershire.—We congratulate Dr. Cooke on a well-earned and substantial increase in income, accompanied with a handsome acknowledgment by the Committee of his services. They also in granting a good pension to the clerk passed a special resolution of thanks to him for his long work. A Committee is bound to obtain and foster the best service by doing what is right in the right way. The wages of the attendants have been improved and the leave increased. Dr. Cooke states his belief that an interchange of patients between asylums for the purpose of promoting their

recovery by change of scene and surroundings would be found to be of benefit. We quite believe this too. Only 25 per cent. of the admissions were in good bodily health and condition. General paralysis caused 9 per cent. and intemperance 10 per cent. of the admissions. Dr. Cooke is, unfortunately, in charge of one of those wretched cases which defy all treatment and upset all rules. He and the Commissioners who visited differ rather as to whether the woman has too much bed or not. Dr. Cooke has found that when kept in bed she is less liable to ferocious outbursts, and will amuse herself with work and papers. It seems to us to be a case where it is only possible to choose the least of several evils. A person leaves his bed to promote bodily and mental health by exercise, companionship, occupation, etc. But where in a special case it is demonstrated that more harm arises out of bed than in bed it must be permissible to break through a rule, however proper it may be for general application.

Yorkshire. North Riding.—A new asylum is to be opened for Middlesborough, which will have a considerable effect in relieving pressure on the space here, but till that is done inconvenience will probably arise, as vacancies are few. Apart from the borough above mentioned the increase of patients from other parts of the Riding is almost nil. Mr. Hingston, like most others, has much to complain of in the character of the admissions, both as to bodily and mental condition, though the recovery and death-rates are on the right side of the average. 3·3 per cent. of the admissions were general paralytics and 9 per cent. due to intemperance.

Yorkshire. Wakefield.—Among the admissions the general paralytics numbered 44, or 12 per cent., while nearly 33 per cent. were due to alcoholic intemperance. Eleven male cases were said to be attributable to sexual intemperance. In only nine out of 346 is the causation returned as unknown, a fact which speaks well for the care with which inquiry is carried out. The asylum has had a full share of zymotic disease, actual and threatened. Dr. Bevan Lewis's statements about small-pox and its inconveniences should carry conviction to the anti-vaccinationists, if they are open to conviction. Two cases occurred, the disease being probably imported by non-resident officers. These had to be at once isolated in the convalescent home—*isolation No. 1*. Then all recent acute cases had to be received into the hospital for quarantine, in consequence of the disease raging in the neighbourhood—*isolation No. 2*. Then for the same reason restriction was placed on the movements in and out of the asylum, which was cut off, more or less, from the outside world—*isolation No. 3*. We believe that isolation is the only way of fighting the disease recognized at Leicester. This must be bad enough in ordinary life, but in an asylum, where grouping is necessary for other reasons, it is intolerable. Then the aid of vaccination was called in, and when everyone—staff and patients—had been operated on the whole

trouble melted away. Though every restriction was removed not another case occurred. Enteric fever made its appearance, though to only a small extent. Water, milk, and drains being above suspicion, it was considered that ground air and damp at the basement might possibly be the source. The system of providing private nurses and of giving advice at an out-patients' department continues to be eminently satisfactory.

Yorkshire. Wadsley.—This asylum is being gradually choked up by chronic cases, each year's admissions becoming of a more unfavourable type. The general paralytics numbered 7·5 of the admissions and the alcoholics 18 per cent. Dr. Kay sent up 23 attendants and nurses for the Association's certificate, and all obtained it. He sees that the training not only improves the nursing, but leads to a better tone among the staff.

Yorkshire. Menston.—This asylum, which the Association visited as brand new but a year or two ago, is nearly full as to females, and overflowing as to males. Plans for "chronic" blocks to contain 600 more patients have been approved by the Home Secretary. The admissions were of an increasingly unfavourable nature, which accounts for a falling off in the recovery-rate and for a high death-rate. Cardiac disease carried off 20, or 16 per cent., of the total deaths. General paralysis was responsible for almost one-third of the deaths and nearly 15 per cent. of the admissions. Alcoholic intemperance was found in 69 and sexual intemperance in 15 of the 388 admissions. Touching this last item of sexual intemperance we note that in the three West Riding Asylums 31 cases are thus returned out of 1,116 admissions, or a ratio of 2·77 per cent. against a ten years' average for all England of ·7 (Blue Book, 1890).

(To be continued.)

2. *German Retrospect.*

By W. W. IRELAND, M.D.

Duboisin a New Sedative.

Dr. Nicholas Ostermayer, of Budapest, published in the "Allgemeine Zeitschrift" (xlvii. Band, p. 278) some experiments on the sedative and hypnotic properties of atropin and duboisin. Like atropin and hyoscyamin it belongs to the class of drugs which dilate the pupil, mydriatica. It comes from the sap of the duboisia myoporoides, a bush or small tree growing in Australia. The natives are aware of its stupefying properties, and put it in ponds to intoxicate the eels and make them rise to the surface. Gerrard discovered the alkaloid in 1878. Duquesnel showed how to crystallise it in 1880. It is a brownish substance,

sparingly soluble in water, but readily dissolved in alcohol, ether, or chloroform. It has a close resemblance to hyoscyamin. Ostermayer found that 1 milligramme of duboisin given in two separate doses to a man in two hours induced drowsiness, delirium starting in the limbs, hallucinations of vision, and increased rapidity of the pulse and respirations.

Dr. Ostermayer tried this drug on 30 insane patients in maniacal conditions. He arrived at the following conclusions:— That sulphate of duboisin is like hyoscin, a prompt and powerful sedative when used in the excited states of mental disease, without the accompanying disagreeable effects of hyoscin. This sedative effect appears in about ten or fifteen minutes. Duboisin is also a hypnotic, inducing sleep in most cases in from twenty to thirty minutes. When the excitement is very great, Dr. Ostermayer recommends a dose of from 2 to 3 milligrammes, but when there is simply sleeplessness from 1 to 1½ mg. are sufficient. No symptoms of intoxication or disagreeable after-effects were noticed to follow the use of this drug. Its influence is lessened after continued use, but on being discontinued for a time the susceptibility returns. Dr. Ostermayer thinks that duboisin might be advantageously substituted for hyoscin, especially when there are affections of the heart and vessels. It is also less expensive than hyoscin.

Further Observations.

Dr. Vladimir Preininger ("Allgemeine Zeitschrift," xlviii. Band, 1 and 2 Heft) publishes the result of his observations on 26 men and 23 women in the Asylum at Prague. He confirms the results arrived at by Ostermayer, as to the efficacy of duboisin in subduing excitement. To ensure sleep one must go up to 2 milligrammes. He found that the sleep seldom lasted more than two or three hours. After doses of from 0·0025 to 0·003 symptoms of intoxication were observed, motor restlessness, clonic spasms of the extremities, increased frequency of the pulse and respirations, headache, weakness and delusions of sight. Dr. Preininger is inclined to think that peculiarity of constitution has its influence in the patient becoming accustomed to the drug and the degree in which he is affected by it. The Italian patients on whom duboisin has been tried seem to require smaller doses than the Germans.

Dr. Nücke, who has made some careful experiments on the use of sedatives, especially chloral-amid, hyoscin, and hydrate of amyl, attracted by the papers of Ostermayer, Gellhorn, Lewald and Preininger, commenced to try duboisinum sulfuricum ("Allgemeine Zeitschrift für Psychiatrie," xlviii. Band, 6 Heft). Dr. Nücke had found hyoscin in small doses to have no effect, and in large doses to be dangerous. He made a number of methodical experiments upon the efficacy of duboisin with forty women

affected with chronic insanity; in all he gave 1,116 subcutaneous injections, and administered it in solution by the mouth 1,952 times. The doses used were from 1 to 2 milligrammes. In 71 per cent. of his cases sleep was induced in half-an-hour, and generally lasted from one to two hours. The pulse was unaffected. In some cases there was marked mydriasis which lasted for several hours. He found the appetite was often affected, which other inquirers had not noticed. Occasionally drowsiness, weariness, giddiness, or reeling followed the injection. He came to the conclusion that duboisin possesses at least as great sedative and hypnotic properties as hyoscin, and is much less dangerous. As its soporific effects do not last long, it is thus useful to subdue fits of excitement or exacerbations of short duration.

More Experiments with Duboisin.

Dr. Selvatico Estease Giovanni has made experiments on dogs, frogs, and rabbits to test the effects of this drug on the circulation ("Neurologisches Centralblatt," No. 18, 1892). He found that it had the same action upon the heart as atropin, but in a less degree. Duboisinum causes contraction of the peripheral vessels, and dilatation of the central vessels. He tried it with good effect upon insane patients with motor restlessness. The doses were small, 0.0005-0.0006. The highest given was 0.0015. He does not consider that we need fear to give it to patients who have heart disease, as it does not diminish the blood pressure to any considerable degree.

Dr. E. Belmondo has used 167 injections of duboisin in 32 patients. As a sedative in all kinds of physical and motor restlessness he prefers it to hyoscin. In some cases of acute mania the drug had a soothing effect upon the mental symptoms. The doses used were from $\frac{1}{2}$ to $1\frac{1}{2}$ of a milligramme. Larger doses injure the appetite.

Mendel on Duboisin.

After a summary of the results of other observers on duboisin, Dr. E. Mendel gives us his own experience of this remedy ("Neurologisches Centralblatt," No. 3, 1893). He has employed it in a considerable number of cases of insanity. He does not believe duboisin to be a hypnotic like chloral, morphia, or sulphonal, because he finds that it is powerless to induce sleep in healthy persons, though followed by muscular weakness. Neither had it any soporific effect in many cases of melancholia and paranoia in which he had tried it. On the other hand he finds it of great value in motor unrest not occasioned by delusions and hallucinations. Dr. Mendel thinks it has a sedative effect on the muscles. He considers that the giddiness and reeling which have followed the administration of large doses of duboisin are not signs of

sleepiness, but of affection of the muscular apparatus. In one case a dose of 1 milligramme caused great dilatation of the pupils, weak and rapid pulse, and difficulty of breathing, with a feeling of suffocation. The professor cannot recommend a higher dose than 1 milligramme by subcutaneous injection. In general he only uses from 0.0005 to 0.0008 of a gramme.

He thinks that in some cases of insanity duboisin is to be preferred to all other remedies. In one especially mentioned, delirium hallucinatorium, accompanied by great motor restlessness, both by day and night, chloral, morphia, and other narcotics were tried one after another without any effect, till it was found that duboisin brought rest and sleep for several hours. Its use was continued for months.

Dr. Mendel also tried duboisin in twelve cases of paralysis agitans. He found it a great benefit in causing the tremblings to cease, so that after the injection of duboisin the patients could execute movements which they could not do before. The doses used were from two to three decimilligrammes two or three times a day. After injection of duboisin in the evening they fell into a refreshing sleep. Thus, though he did not find duboisin to be a curative remedy, he found it of great use in treating the distressing symptoms of paralysis agitans.

More about Duboisin.

Dr. S. Rabow, of Lausanne (quoted in "Neurologisches Centralblatt," November 20th, 1893) has made extensive observations on the use of this drug in nervous and mental diseases. He does not think much of it as a hypnotic, but he finds it very useful as a sedative in states of excitement of insane patients. In subduing such symptoms the drug acts promptly without having any durable influence on the insanity. When often used the patient becomes accustomed to its action. Take it all in all, Dr. Rabow prefers duboisin to hyoscin, and hopes through increase of our knowledge of its chemical nature and increased constancy in its preparation that this drug will become an important addition to our materia medica. He prefers it to be given by the mouth instead of by subcutaneous injection.

Trional.

Dr. H. Koppers (quoted in the "Neurologisches Centralblatt," November 20th, 1893) has tried the new hypnotic, trional, on twelve patients. He states the following conclusions:—

1. Trional is a very serviceable hypnotic which acts quickly and surely in various cases in doses of from one to two grammes.
2. It is especially useful for the excited states of insane patients.
3. Its administration is sometimes followed by dulness and heaviness, weariness and sleepiness. These effects are not marked,

nor do they last long; are increased by a higher dose, on which account it is seldom advisable to give more than two grammes.

4. Disorders of the digestive organs are seldom observed; the respiratory organs do not appear to be affected, but the use of trional causes unpleasant and even serious symptoms in heart disease, with hypertrophy. On this account it must be given to such patients with much caution. It has a pretty constant action in suppressing the perspiration. This effect is observable in doses of from 0.5 to 0.25 of a gramme.

Böttiger ("Centralblatt für Nervenheilkunde," März, 1893) has tried trional on 75 patients. He found it of no use in sleeplessness caused by pain; of most use in uncomplicated sleeplessness. The doses given were from one to four grammes. He found that one gramme of trional was equal to three of chloralamid, or three of hydrate of amyl. Brie, who tried chloral in forty-two cases ("Neurologisches Centralblatt," November 24th, 1892), considers it to be the best hypnotic, destined to take the place of sulphonal. He found it successful both in simple sleeplessness and in the excited condition of insanity. He gives it dissolved in warm water, with a little cold water added, in doses of from one to two grammes.

Dr. Hammerschlag, in an inaugural dissertation (quoted in "Neurologisches Centralblatt," November 14th, 1893), has published observations taken in Jolly's clinique, in Berlin, upon trional as a hypnotic. This was tried on 60 patients, some of them insane, others affected with alcoholism and morphinism. He confirms the favourable judgment given by other writers, and in opposition to the statements of Barth, Rumpel, and Böttiger he affirms that he has seen favourable results in the excited stages of delirium tremens in as many as 60 per cent. of the cases, though never in the worst form. Dr. Hammerschlag thinks favourably of the remedy in morphinism. It also answered in a case in which the abuse of morphia was combined with that of cocaine.

Treatment of Status Epilepticus.

Dr. Kernig ("Petersburg Med. Wochenschrift," No. 18, quoted in "Allgemeine Zeitschrift für Psychiatrie," xlix. Band, 4 Heft), in treating a little girl whose life was in danger from the status epilepticus, used subcutaneous injections of pilocarpine, 0.02 gramme pilocarpine mur., giving at the same time emulsion of camphor, 1.5 gramme, in a case of status epilepticus. The patient broke into a perspiration, and the convulsions ceased at once, but the œdema of the lungs and the depression of the pulse lasted an hour longer. Gradually all threatening symptoms disappeared, and the patient fell into a deep sleep with a good pulse.

Injection of Healthy Nerve Substance.

Professor V. Babes, of Bucharest ("Neurologisches Centralblatt," No. 1, 1893), has treated a number of cases of epilepsy,

melancholia, and neurasthenia with subcutaneous injection of healthy nerve substance. In this way he claims to have cured several cases of epilepsy and to have improved others. He finds this injection very efficacious in overcoming sleeplessness and to have removed inveterate headache and sciatica.

Treatment of Cerebral Anæmia.

Dr. Carl Laker ("Allgemeine Zeitschrift," xlix. Band, 4 Heft) observes that the ordinary treatment of faintness caused by sudden anæmia of the brain is to make the patient assume the horizontal position. He considers that the filling of the brain with blood is more rapidly accomplished by the use of Kessel's air douche. This when applied to the nasal cavity produces great flushing of the face. Dr. Laker introduces the instrument, a bent metal tube, through the mouth behind the soft palate, the nostrils being closed; a powerful stream of air is then blown into the nasal passages. This causes the glottis to shut, which arrests the current in the veins of the neck, causing a retardation of the return of the blood from the brain. This procedure has been found valuable in cases of fainting connected with anæmia of the brain.

Recovery from General Paralysis.

Dr. Kusnetzow ("Wratsch," No. 10, quoted in "Allgemeine Zeitschrift," xlix. Band, 4 Heft) describes a case of recovery from general paralysis. The patient, forty-three years old, presented marked alterations in his behaviour with affection of speech. In December, 1884, he had all the mental and bodily symptoms of general paralysis with maniacal excitement. In the beginning of 1885 his strength had much failed. He was dirty in his habits, and the left ear was affected with othamatoma. In April the bodily condition improved, and he became quieter. In May the excitement had passed away, his mind was clear and logical and the memory good. In June the improvement still continued, and all bad symptoms disappeared. In a few months more the man returned to his usual employment, which he has discharged till 1891 apparently as well as he was before the attack.

Aphasia in Children.

Cases of mutism in children uncomplicated with deafness or idiocy are extremely rare. We learn from a report in the "Neurologisches Centralblatt," No. 16, 1893, that Dr. Leopold Treitel has collected several instances from medical literature, to which he adds six observations of his own. After carefully analyzing the mental symptoms, Dr. Treitel is of opinion that this want of speech power is in most of his cases owing to a deficient development of memory, in others owing to an incapacity to concentrate the attention which is necessary for the attainment of language. This, of course, implies a low development of the

mental faculty. Acquired aphasia in children sometimes follows neurosis, such as hysteria, chorea, or epilepsy, and sometimes it comes after fevers. Dr. Treitel observes that the prognosis is more favourable in aphasia following cerebral affections in children than in grown-up people, as the vicarious action of the right hemisphere comes in more easily at an early age. This is, perhaps, the reason why uncomplicated aphasia is so extremely rare in young children. I have never seen a case of mutism in children in which the intelligence was intact.

Stupidity through Obstruction of the Nasal Passages.

Dr. Victor Lange, of Copenhagen ("Centralblatt für Nervenheilkunde," März, 1893), has observed cases in which the mental capacities of children have been much checked by adenoid growths in the nasal passages. The principal symptoms of this affection are imperfect respiration through the nostrils, causing the child to breathe with the mouth open, a thick pronunciation, and dulness of hearing. Children thus affected have a stupid face, a vacant expression, and a wandering gaze. Sometimes in addition to these symptoms there is a feeling of tightness across the forehead, headache, earache, giddiness, or bleedings at the nose; sometimes there is a deficient capacity to collect the thoughts, as has been indicated by Prof. Gay, of Amsterdam, in the affection which he calls *aproxia nasalis*. The removal of these adenoid growths has sometimes a wonderful effect; from being apathetic and of backward growth both in body and mind, the child becomes awakened to a new life, and the bodily and mental development take a fresh start.

3. *Pathological Retrospect.*

By EDWIN GOODALL, M.D., West Riding Asylum, Wakefield.

Nissl's Staining Method.

This is a method to which considerable importance has been and is attached in Germany. Nissl's original description appeared in 1885, and in this magenta is recommended as the staining agent. In 1890 he described a modification which has superseded the older process. In this country but little seems to be known of the method, of which the following is a brief description:—Have ready (1) a 0.5 % aq. sol. methylene blue (methylenblau patent B, from C. Buchner and Sohn, Fabrik pharmaceut. chem. Producte, Munich); (2) a mixture of anilin oil 20, alcohol 96 % 200 parts (this must not be too old); (3) origanum oil; (4) benzine; (5) a balsam made by dissolving colophonium in benzine, and of the consistence of ordinary chloroform-balsam. Portions of tissue as fresh as possible, in size 1-2 ccm., are placed for

fixation and hardening in alcohol 96-98 %_o, for 24 hours. Remove, fix on cork by gum (caused to set by placing the whole in methylated spirit), and cut sections by the sliding microtome into spirit. The sections are placed, from pure alcohol or distilled water, in the methylene-blue solution, and this is heated until bubbles form—"until the crackle of bursting bubbles is heard." After cooling, transfer the sections to the anilin-alcohol, and agitate them about until no more clouds of colour are given off. An appreciable differentiation takes place. Transfer a section to a slide, dry it well with filter-paper by pressure, apply a few drops of origanum oil (which is quickly allowed to run off), dry again with filter-paper. Run some benzine over the section to drive off the remains of the origanum, and place a drop of the colophonium solution on the section. The slide is now drawn through the flame of a spirit-lamp and the benzine set alight. When it has all been burnt off adjust the cover-slip. Warm the under surface of the slide, pressing down the cover gently; the colophonium is rendered fluid. Allow to cool.

It is claimed for this method that it affords far more information concerning the structure of the nerve-cell than is obtainable by the ordinary methods of chrome-hardening followed by carmine or anilin staining. The granulations of the cell-body are the structures especially brought out. The nucleus is unstained, in healthy tissues the nucleolus stains deeply. Connective-tissue nuclei and those of vessel-walls are also well shown. By this method Nissl showed the alterations undergone by the cell-granules in the case of the ganglion-cells of the facial nucleus of a rabbit in which the corresponding facial nerve had been torn away. The changes commenced on the first day and progressed daily. They consisted in a gradual breaking-up of the granules until the normal appearance of the cell protoplasm was quite lost; the cell appeared as if dusted over with fine particles of colouring matter. This *débris* of granules was only faintly stained. *Pari passu* with the above changes the cell-body became swollen and rounded, and the nucleus and cell-processes disappeared. All the cells of the nucleus were not equally affected at the same time, stages of degeneration being exhibited, so that cells apparently completely broken down were adjacent to others seemingly healthy.

The value of Nissl's method is emphasized by Rehm ("München. Medizin. Wochenschr.," March 29th, 1892) and Alzheimer ("Archiv. f. Psych.," xxiii. B., 2 H.). Rehm has introduced certain modifications into the technique whereby the method is simplified. For these see the paper quoted. Alzheimer observes that the cell-granules are shown by Nissl's process far better than by any other. Neither in fresh sections stained by anilin blue-black nor in chrome-hardened ones can these structures be properly seen. According to Alzheimer pathological changes often

show themselves earliest in the cell-granules, and therefore nerve-cells can be recognized as diseased by this method which by any other would appear healthy. Thus he was able by it to find changes in almost all the ganglion-cells of the "central nervous organ" in a case of "mania gravis." These did not appear in chrome sections. The staining of the nucleus may be taken to indicate disease of that structure.

Recently Schaffer ("Neurolog. Centralbl.," December 15th, 1893) has found that Nissl's method affords a means—in addition to other methods, such as the Golgi-Cajal—of discriminating between the axis-cylinder and the protoplasmic processes of the nerve-cell. Whereas the latter with this method show spindle-shaped chromatin bodies, stained by the methylene blue, the axis-cylinder is quite free from such, being homogeneous. Nissl sections are best studied directly after preparation. The stain begins to fade rather quickly (in a few days); this, at least, is the writer's experience, and Alzheimer makes the same statement. The granules can be shown in preparations 24 hours after death, but nevertheless pieces should be as fresh as possible. The writer has had the opportunity of examining sections prepared after Nissl in the laboratory of this asylum by Dr. Cook, of the St. Lawrence State Hospital for the Insane, New York. The sections were from the brains of general paralysis, chronic mania, and dementia. Without trespassing on Dr. Cook's work, it may be said that many of the degenerate appearances described by Nissl in the case of the rabbit are to be seen in these specimens. It seems most desirable that this method should be employed on a large scale in the examination of the brains of persons dying insane, and that sections from such brains should be compared with healthy sections, so that the proper value of the method may be ascertained. The case referred to by Alzheimer is a strong argument for its adoption. In such cases examination by the ordinary methods may fail altogether to show any lesion of the nerve-cell.

Etiology and Pathology of Acute Delirium (Acute Delirious Mania).

Rasori makes the following communication to the "Centralbl. f. Bakteriologie," xiv. B., No. 16. A patient, æt. 45, was admitted into the asylum in a state of acute delirious mania. The attack began six days before admission simply with obstinate headache. Inquiry into the personal and family history failed to throw light upon the cause of the disorder. The patient died within eight days, having exhibited, in addition to the ordinary symptoms, opisthotonos, clonic spasm of the facial muscles; and difficulty in swallowing, due apparently to spasmodic action of the muscles of deglutition. The necropsy revealed great congestion of the cerebral meninges, on the under surface of which were numerous small blood extravasations; also congestion and œdema of the brain.

The cortex was softened in the right temporo-spheroidal lobe. Tubes of broth and agar were inoculated with fluid obtained from the subdural space, and kept in the incubator at 35°C. Both media gave pure cultures of one and the same organism—a small bacillus with rounded ends, about three times as long as it was broad. This occurred singly and in short chains. It could be stained by the ordinary anilin dyes, also by carbol or by alkaline methylene blue, but not by Gram. The organism grew rapidly in all the ordinary media, alike at the temperature of the body and of the room. The mode of growth was not specially characteristic. Rabbits were inoculated with the pure culture in different situations—beneath dura mater, skin, and nasal mucous membrane. When the first-named site was selected death ensued in two days; in the other cases in 4-6 days. In all cases there was a marked rise of temperature, and signs of illness were manifested. Post-mortem examination showed in each instance great congestion of the cerebral meninges, with hæmorrhage on the under surface of the pia; also congestion and cedema of the brain. Microscopical preparations and cultures made from the subarachnoid fluid and blood showed the same bacillus as that inoculated, and this was also found in sections of the brain, lying in numbers between the nerve-elements. Rasori promises a more detailed account of the microscopical examination of these sections.

In Vol. i. of the "Edinburgh Hospital Reports," 1893, Dr. Batty Tuke records briefly certain microscopical appearances in a case (æt. 25) of dementia with delusions. These he regards as indicative of a leucocytal action on cortical cells. The upper end of the left ascending parietal gyrus was examined by the fresh (ether-freezing) method. In the third and fifth layers, especially the former, a large proportion of the nerve-cells was affected as follows:—"The body of the cell was highly reticulated and slightly coloured by a yellow amorphous material; the nucleus was enlarged in some instances, and vacuolated. Around the cells leucocytes were found in large quantities, eating into the body as far as the nucleus in some cases, in others occupying the whole area of the cell. Between the cells of both layers leucocytes, enlarged neuroglia cells, and naked nerve nuclei were found scattered in large numbers. In no instance was a giant-cell (fourth layer) found affected." Dr. Batty Tuke thinks it possible that the action of phagocytes on degenerated cells (as illustrated in this case) has been overlooked, or that the appearances have been misinterpreted. Bevan Lewis, in his chapter on the pathology of chronic alcoholism ("Text Book of Mental Diseases"), speaks of the cells of the lowest layer of the cortex (spindle-cell formation; that is, the "fifth layer" referred to by Dr. Tuke) as being covered by heaps of "nuclear proliferations," which often conceal them from view. The cells also frequently show pigmentary change. These appearances can readily be seen. The third layer,

however, does not present them. It is a matter of conjecture whether the condition seen in the case of the chronic alcoholics is identical with that described by Dr. Tuke. A cardinal point, however, is that Bevan Lewis ascribes the phagocytic action, whereby degenerate cells are removed, not to the pericellular elements (be they nuclei or leucocytes), but to the neighbouring "scavenger corpuscles," which are quite different structures, whatever their mode of origin. In Dr. Tuke's case there were, in addition to leucocytes, "enlarged neuroglia cells" between the nerve-cells of both layers. To these, however, no importance is attached. Supposing the pericellular elements described by Dr. Tuke to have been leucocytes, and supposing, further, that they were exercising a phagocytic function, our conceptions upon phagocytosis as it relates to the brain must undergo notable modification. The rôle of phagocytes is, in fact, claimed for two classes of cell—certain cells of the neuroglia and leucocytes. Morphologically these differ widely, even if we admit that they have the same origin. In a recent study of the cortex cerebri of the rabbit in states of inflammation experimentally produced, the writer was unable to convince himself of the phagocytic action of the extravasated leucocytes.

The Neuroglia Elements in the Human Brain.

Andriezen ("Brit. Med. Journal," July 29, 1893, and "Internat. Monatschr. f. Anat. u. Phys.," 1893, B. x., H. 11) proposes to classify these as follows:—(i.) Neuroglia fibre-cells; (ii.) Protoplasmic glia-cells. Between these two classes of cell there are well-marked distinctions. There are two species of neuroglia fibre cell—(a) that situated in the first layer of the cortex, the caudate cell; (b) that situated in the medullary substance, the stellate fibre cell. The caudate cells are imbedded in the outermost layer of the cortex, with their bases towards the pia. From the apex of each cell fibres stream tuft-like into the deeper layers of the cortex. From the base tangential fibres are given off. The individual fibres are long, smooth-contoured, of uniform thickness, unbranched, and slightly wavy. In the stellate fibre cell a distinct cell-body is hard to recognize; its characteristic is the enormous number of fibres which it gives off. These closely resemble the fibres of the caudate cells. The protoplasmic glia-cells, in contradistinction to the neuroglia fibre-cells, occur abundantly throughout the grey matter in all layers of the cortex, and are correspondingly rare in the medullary substance. These cells present a distinct cell-body, their processes are of moderate length only, vary greatly in calibre, and are dendritic. Further, the protoplasmic glia-cells are attached to the perivascular sheaths by one or more processes. Andriezen gives reasons for believing that these cells, with their processes, are surrounded by lymph-spaces which

are continuous with the perivascular lymph-space. The neuroglia fibre-cells exhibit no such lymph-space. In addition to the distinctions already drawn between the two classes of cell, it can be shown that the protoplasmic glia-cells with vascular connection are mesoblastic in origin, whilst the neuroglia fibre-cells are epiblastic. The function of the latter seems to be to provide "a passive supporting feltwork" in the brain, whilst the protoplasmic glia-cells play an "active rôle in the circulatory and lymphatic economy of the brain." The cells last mentioned are really the elements which hypertrophy and fibrillate in pathological states, such as alcoholism and general paralysis. A further noteworthy point is that the fibre-cells form a perivascular feltwork ensheathing the cerebral blood-vessels, constituting "a distinct and well-organized fourth coating." The cells are arranged mainly with the long axis parallel or transverse to that of the vessels. Being imbedded in the ground-substance they have no continuity with the adventitial sheaths of the vessel, which lies outside that substance. Besides the cells mentioned, the ordinary stellate glia-cells contribute a few fibres to the perivascular feltwork. As to the physiological significance of this sheath, Andriezen points out that it opposes a considerable resistance to undue expansion of the blood-vessels, thus in a measure compensating for the weakness of the muscular coat, and the absence of a tough adventitial coat in the cerebral blood-vessel. Further, its texture and porosity are such as to allow of the free passage of lymph and products of metabolism, thus permitting interchange between the cerebral tissue and the perivascular lymph-spaces. In this investigation the Golgi-Cajal method, with slight modifications based on the author's experience, was employed.

In a paper entitled "*Dei Limiti Precisi tra il Nevroglia e gli Elementi Nervosi del Midollo Spinale*" ("Boll. d. R. Accad. Med. di Roma," anno xix., Fasc. ii.) Paladino states the relationship existing between the neuroglia and the nervous elements in the spinal cord (of man, ox, and cat), as shown by his method of staining by iodide of palladium after the removal of the medullary substance. This process brings out contemporaneously the nerve-cells and the neuroglia elements. Amongst other points it shows that the medullated sheath of nerves is formed upon a framework or skeleton of neuroglia-tissue, directly continuous with the interstitial neuroglia. This intra-medullary neuroglia has also its cells, with irregular outline. The neuroglia network about the nerve-cells is well shown by this method; on the one hand it is continuous with the interstitial neuroglia, on the other delicate fibres can be seen to pass on to the nerve-cells. Further, the method shows the continuation of the neuroglia fibres into the pia mater.

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A meeting of the Association, being an adjournment of the Annual Meeting, was held on February 15th, 1894, at the Randolph Hotel, Oxford, under the presidency of Dr. Murray Lindsay.

The PRESIDENT said the meeting, as they were all aware from the notices they had received, was an adjournment of the Annual Meeting for the special purpose of further considering the report of the Rules Committee, a report which had involved a very large expenditure of time, labour, and patience, which he felt sure they cordially recognized. He had no doubt their deliberations that day would be smooth and harmonious, because they were all animated by the same spirit, that of doing the best they could for the interests of the Association. They would proceed at once to business.

After considerable discussion it was held that the present meeting had power to finally deal with the rules as it thought fit.

CHAPTER I. (CONSTITUTION).

Rules 1, 2, and 3 were passed.

On the suggestion of the PRESIDENT it was decided to deal only with the parts of the rules printed in italics, with the understanding that verbal alterations not involving the alteration of any principle might also be made.

On the consideration of Rule 4, Dr. CONOLLY NORMAN moved, "To substitute the word 'general' for 'a' in clause (2), and to omit 'and Divisional' from clause (3) of the same rule.

Dr. MERCIER said that in drafting the rules, the Rules Committee had the instructions of the Association before them for divisions, and these divisions were to be practically upon the basis of the present Irish and Scotch branches. At present the Irish and Scotch branches had power to elect members to their Association, and it was felt they could not deprive the new divisions of that power of electing members without at the same time depriving the Irish and Scotch branches of that power. It seemed to him impossible to deprive the Irish and Scotch branches of this privilege which they had enjoyed for a very long time.

Dr. SHUTTLEWORTH asked whether the Irish and Scotch branches had power to elect an English member. For instance, supposing he were a candidate wishing to join the Association, could he be elected by sending his name to Edinburgh or Dublin.

The PRESIDENT—I fancy that was never contemplated and practically never done.

Dr. SHUTTLEWORTH pointed out that the proposed rule left no option, and a man might get elected by a northern who was unpopular in his own district in the south.

The PRESIDENT said that no doubt the spirit of the clause was meant to apply only to local candidates, and he did not think any attempt would be made to get a candidate elected by a side wind as had been suggested.

Dr. ERNEST WHITE seconded the amendment, and said it would help them to remove a privilege which had been enjoyed by Scotch and Irish members, as he thought the time had come when all members of the Association should be elected by the general body of the Association.

Dr. WEATHERLY said that one of the objects of having these divisional meetings, so far as he understood Dr. Macdonald and Dr. Rayner, was that these divisions should try as much as they could to whip up new members, and it was a very great point, in discussing the rules, in the Rules Committee, that the

divisions should have power to elect members. He certainly thought that the rule adopted in the British Medical Association should also be adopted in their own Association, that the candidates should be elected by the divisions, but not become members until their names had been brought before the general meeting, but he was overruled in that, and it was definitely decided that the divisions should have the power of electing members, and when elected they should be members of the Medico-Psychological Association of Great Britain and Ireland. He quite agreed with what Dr. Shuttleworth had said, that it was open to objection unless they gave the name of a definite Secretary, because an objectionable member might try and get elected in a division in which he is not known.

Dr. Conolly Norman's amendment was then put and carried by ten votes to nine.

Dr. WEATHERLY challenged the vote. He would propose that the votes be taken down in writing.

A division was then taken by each member writing his name for or against the amendment, as follows:—For: Drs. Spence, Mould, White, Finigan, R. Baker, J. Merson, Conolly Norman, Savage, Fox, Seymour Tuke. Against: Drs. Hack Tuke, J. A. Ewan, Morrison, Fletcher Beach, Murray Lindsay, Percy Smith, Shuttleworth, Whitcombe, Mercier, Weatherly, Newington, Richards.

The PRESIDENT declared the amendment lost by 12 votes to 10.

Dr. WEATHERLY proposed that in clause (2), instead of "a Secretary" it should read "the General Secretary, or the Secretary of the division in which the candidate resides."

Agreed to.

Dr. MORRISON, on the consideration of clause 3, asked whether the notices were to go round to the entire body of the Association, or were they to be limited to the members of the division?

Dr. NEWINGTON said there was a principle involved in this. If the notice was sent round to every member of the Association as at the last meeting, it obviously meant an invitation to the whole of the members to attend the divisional meeting. The question was whether the divisional meeting should be the property of the division itself or the property of the Association generally.

A MEMBER pointed out that there was nothing before the meeting. A gentleman had raised a question, but no amendment had been moved.

A MEMBER thereupon proposed that the word "and" between "general" and "divisional" should read "or," but this met with no seconder, and consequently fell to the ground.

On Rule 5, Dr. SPENCE said that even supposing they gave power to the divisions to elect members, the members of the Association at large ought to have the opportunity of seeing the names of the men proposed for election, so that if by any chance, which was an improbable thing, objection was taken to any name, members of another division or those who did not attend the general meetings might have an opportunity of entering a protest.

Dr. MORRISON said he should like to have some definition of what was a general meeting and what was a divisional meeting.

The PRESIDENT—Chapter IV. gives all the details about meetings.

Dr. WEATHERLY thought they might stop the discussion if they gave power to divisions to elect members, but before they became absolute members of the Association their names should be referred to the General Council for confirmation.

Dr. MERCIER proposed that Rule 5 stand part of the Rules of the Association, which on a show of hands was agreed to.

On Rule 7, Dr. CONOLLY NORMAN said he would like to know when anyone was elected a member of the Association at a divisional meeting, whether he remained a member of the same division in case of his changing his residence? Did he become a member of another division supposing he went into it, or did he remain a member of the original division?

Dr. PERCY SMITH—I apprehend when a member is elected he has a right to attend any meeting. There is no question about it.

Dr. MERCIER submitted that this question did not arise under this rule, and he would propose that Rule 7 be carried.

This was agreed to.

On Rule 10, Dr. PERCY SMITH proposed "That the words 'Honorary, Corresponding, and Ordinary' should be inserted between the words 'and' and 'members' in the previous line."

Agreed to.

On Rule 19, Dr. CONOLLY NORMAN said the wording of the rule would seem to include the power of voting by honorary members on questions connected with the internal policy of the Association. They might vote upon questions of finance and discuss the rules. Surely that was not intended?

Dr. NEWINGTON proposed the omission of the words "powers and" in the second line, and all the words after "voting" in the third line.

Agreed to.

On Rule 20, Dr. PERCY SMITH proposed to insert the words "and Colonial" after "Foreign," and the omission of the words "engaged in lunacy practice and" in the first line; and the insertion of the words "of such members" after "number" in the last line.

Agreed to.

On Rule 23, Dr. HACK TUKE proposed to insert in the first line after "shall" the words "be exempt from all payments to the Association, and shall."

Agreed to.

On Rule 24, Dr. HACK TUKE said he had not the slightest wish to enlarge the scope of the divisional meetings, but the words "scientific investigation" did not seem to him quite enough for what they were all prepared to allow the divisions to discuss. He would therefore propose that the rule should read, "There shall be divisions of the Association for promoting its objects as set forth in Rule 2."

Agreed to.

On Rule 25, a MEMBER suggested that the numbers be a majority of two-thirds of the members present at the meeting when the matter was brought under discussion.

Dr. MERCIER thought it would be most unfortunate to pass anything of the kind, and that it would be far better to leave the matter in the hands of the Council, who were elected for the purpose of managing the business of the Association.

The rule was passed without alteration.

On Rule 27, Dr. WHITE proposed to insert after "Association" in the second line the words "After a list of candidates for election has been sent to every member of the Association."

Dr. CONOLLY NORMAN seconded.

Dr. MERCIER said he must confess he did not understand this extreme jealousy as to the admission of members into the Association. They were assured that the constitution of these divisions would be a source of enormous increase of the members of the Association, and that was one of the strongest arguments put forward at the last meeting in favour of the formation of divisions. Now it seemed that they were so afraid the influx of members would be so enormous as to swamp them altogether, that they must raise barriers against their admission. He thought it would be unwise to raise any needless restrictions in the way of admissions of new members, and as he considered Dr. White's amendment would cause a needless restriction he hoped the Association would reject it.

Dr. WHITE—I rise in the spirit of not desiring to place any barrier whatever upon the election of members. I think that in the election of members of an Association like ours the names of the candidates should be generally known to

the members of the Association, and that is all that we ask for. We merely ask that a little list shall be sent round to each member of the Association of the candidates for election.

Dr. WHITCOMBE said the subject had been thoroughly considered by the Rules Committee, and the general feeling of the Committee was that the divisions, when constituted, should have the power to elect members, and he believed that was the general opinion also of the last meeting they held upon the rules.

The amendment was put and lost, five voting for and ten against it.

Dr. HACK TUCK proposed the insertion of the words "hold its meetings" between "to" and "choose" in the first line, and the omission of all the words after "business" in the third line.

Agreed to.

Dr. MORRISON proposed to insert the words "to elect its own Secretary" after "Association" in the third line, and said the whole discussions in connection with the divisional branches were carried on in the spirit of electing their own Secretaries.

Dr. WEATHERLY seconded, and thought it was absolutely absurd that the General Association should have a voice in the election of a Divisional Secretary. Whether the name of the Secretary should be brought before the Council for confirmation was a question for the meeting to discuss. If they were going to allow divisions to be formed were they going to say that the members composing that division were not fit and proper persons to elect their Secretary? Were they to be dictated to by persons who had no interest in their division?

Dr. NEWINGTON said at the last meeting it was decided that the Secretary of each division should be *ex-officio* a member of the Council. Hitherto the Council had been elected entirely by the Association, with an opportunity at the Annual Meeting of suggesting more suitable persons. But according to this amendment, conjoined with another rule afterwards, the division would elect its Secretary straight into the Council. A point he made at the last meeting was this, that if they were going to allow any division, such as Scotland and Ireland, with less than 50 members, to elect a member of the Council by sending its Secretary, it followed in justice that every 50 members in England should have the same power. If this was logically carried out, there being 300 members in England, there ought to be six English divisions, each electing a member of the Council in the shape of a Secretary. The question was, what was the balance of convenience to the Association? Was it convenient that the five divisions now proposed should be extended to eight or ten? The committee foresaw the difficulty, and as a sort of compromise it was decided that they should suggest that instead of the absurdity of having six English divisions, with all the machinery of six ballotings for Divisional Secretaries, the Divisional Secretary should be "an officer" of the Association, and that it should be an understood thing that, as in Scotland and Ireland the wishes of the Scotch and Irish had been faithfully observed, means should be taken by the Council to see who would be a proper person to appoint for any branch in England. That was the scheme, and he thought it was an extremely fair one.

Dr. WHITCOMBE said that as a member of the Rules Committee he was bound to stick to the rules, but he would suggest to Dr. Morrison that probably it would meet the views of the opponents of his amendment if he would be satisfied with making a recommendation to the Council.

Dr. WEATHERLY said he would be satisfied with that, but his object was to prevent any other divisions having an absolute voice in the election of Secretary for the particular division.

Dr. MORRISON—Is the election to take place except upon vote?

Dr. WEATHERLY—The division sends up the name of the Secretary, and that is to be confirmed by the Council.

Dr. MORRISON—The man elected by the Council may be thoroughly popular with the Council, but very unpopular in the Division.

Dr. SHUTTLEWORTH asked whether there was any valid reason why the Divisional Secretary should be a member of the Council. That practice was not pursued in the British Medical Association, and why should it be so with their Association.

Dr. MERCIER—Simply because it was passed at the last meeting.

Dr. SHUTTLEWORTH thought the principle of centralization would be kicked against, certainly by the northern people, and he thought it was a bad one.

Dr. WEATHERLY said that in the British Medical Association the Secretary was certainly not an *ex-officio* member of the Council, but each division had power to elect a member of the Council. In their own Association they thought the Secretary was the right and proper person to be an *ex-officio* member of Council, and any analogy drawn from the British Medical Association was a false one.

The PRESIDENT remarked that strong representations had been made to him on the lines of Dr. Weatherly. There was a strong feeling that way, and it was common sense.

Dr. EWAN said it seemed absurd that the divisions should have no power to elect their own Secretary. Why should they in the south-west get an Honorary Secretary appointed by the Council who probably did not know the individual members of that division?

Mr. RICHARDS suggested that the different divisions should not elect their own Secretary, but submit a name for confirmation at the Annual Meeting.

Dr. MORRISON said he wished to answer Dr. Newington, whose great objection to the Secretary being elected by the divisions was that the franchise was unequally distributed. Did Dr. Newington change the franchise by having the Secretary elected as he suggested? He would propose as an addition to the rule "That each division shall recommend to the Council, after taking a vote of the division, the name of a member to act as the Secretary which the Council will accept."

Dr. CONOLLY NORMAN—That is to say each division shall send forward a name to the Council, with a mandatory order that the Council shall elect. That gives the Council no power. I think it is monstrous that such a proposal should be made.

Dr. MORRISON—Why should the Council have this particular power of throwing out any popular man? Practically, the Council has the power to nominate him and elect him.

Dr. MERCIER—No, no; the Association elects him.

Dr. MORRISON—Supposing the Association does not elect him? We should be at a deadlock.

Dr. FOX protested against the wording of the amendment, and Dr. MORRISON agreed that it should read as follows:—"That each division will recommend to the Council, after taking a vote of the division, the name of a member to act as the Secretary, which the Council will consider."

Dr. WEATHERLY seconded this, and it was carried *sem. con.*

Dr. EWAN proposed to insert "and Secretary" after the word "Chairman" in the second line.

Not agreed to.

The rule as amended was then passed.

On Rule 29, Dr. SPENCE said he should like to ask the Secretary of the Rules Committee a question which he had put to him privately, and he told him he was unable to answer it—(laughter)—that was to say, had members of the Northern Division the right to attend meetings of the South-Western or South-Eastern Divisions?

The PRESIDENT—That question came up in conversation to-day, and it was thought Yes.

Dr. MERCIER—It has never been settled. It is a very important question.

Dr. SPENCE—For the purpose of settling the question I will move the addition: "That meetings of each division be open to every member of the Association."

The PRESIDENT—I think that is the general feeling.

Mr. RICHARDS—I don't think it is the general feeling. Members of one division might go down and swamp another division.

The PRESIDENT—They will only take part in the scientific discussion.

Dr. WHITCOMBE said he presumed, and thought every member of the Association had the same feeling, that they were at liberty as individual members to belong to a division or not, as they liked; just as in the British Medical Association, a man might be a member of the Association and not necessarily a member of a branch.

Dr. SPENCE amended his rider as follows:—"That all members of the Association have a right to attend any of the divisional meetings, and take part in all business of the meetings save such as refers to the internal management of the division."

Dr. CONOLLY NORMAN seconded.

Dr. Spence's rider was then put and carried.

Dr. EWAN proposed the insertion of the word "other" between "the" and "meetings" in the second line.

Agreed to.

Dr. SAVAGE proposed "That notices of all meetings other than special shall be sent with list of names of candidates for membership to the Editors of the Journal for publication."

Agreed to.

On Rule 30, Dr. CONOLLY NORMAN said he wished to ask whether every member residing in a division would be responsible for the expenditure, because as far as he could see unless that was done there would be a money premium put upon members not belonging to a division. Members of the Association not belonging to any division would apparently be free from expense, and it would be an inducement to members who at present did not attend the meetings to continue in their evil course.

Dr. MERCIER said the intention of the Rules Committee was simply to carry out loyally the instructions they received from the Association. Individually, they were all against it, and thought the divisions should pay for their own expenditure; but they were afraid if they proposed such a rule as that that it would immediately be said, "Oh, you are trying to smash the thing; you have accepted this resolution nominally, and now you are destroying it in detail, and you are placing upon us expenses that we cannot bear, and you intend to upset the apple-cart altogether." Therefore the Committee laid this burden upon the unattached members rather than upon the members of the divisions in order that it might be shown that they intend to carry out loyally the intention of the Association.

After some further discussion the rule was passed without alteration.

CHAPTER II. (OFFICERS).

On Rule 2, Dr. MERSON said as the rule stood the power of voting for all officers was confined to members present at the Annual Meeting. He understood from what took place at the last meeting that the principle was settled that all members of the Association should have the power, if they liked to exercise it, of voting for officers as well as for the Council. ("No, no.") If that was not so, he begged to propose as an amendment that after the words "that meeting," in the third line, should be inserted "or voting by paper as provided for in Rule 7 for the election of members of Council."

Dr. CONOLLY NORMAN seconded the amendment, which was supported by Dr. MORRISON.

Dr. NEWINGTON said that in the year he had the honour of presiding over

the Association this question was distinctly raised. It was felt that for the superior offices of the Association the Council could very well ascertain the feeling of the Association as to who would be fit and proper persons for the incoming year, and anything like rivalry or fighting in respect of those offices was to be deprecated.

Dr. MERCIER said the arrangement in the rules was the result of a very long and animated discussion in the Rules Committee, and it was a compromise which all members of the Rules Committee were bound to support, and which he thought would work very well. He might say he was one of its opponents in the Rules Committee, but at the same time he had been to a considerable extent converted, and he believed it was the best arrangement for the Association.

The amendment was put and lost, and Rule 2 was passed.

On Rule 17, Dr. SPENCE proposed to insert after the word "divisions," in the second line, "and shall send notices of such meetings to the Editor of the Journal, in accordance with Rule 29, Chap. I."

Agreed to.

CHAPTER III. (THE COUNCIL).

On Rule 4, Dr. MORRISON thought the rule, if put into operation, would operate very strictly against assistant medical officers; it would be rather a hardship upon them.

Dr. WHITCOMBE said there was no intention on the part of the Rules Committee to do any such thing, and he would propose to substitute for the words "four successive meetings of the Council," "at least one meeting of the Council during the year."

Agreed to.

On Rule 6, Dr. HACK TUKE said that Dr. Rayner had intended to propose an amendment to this rule, but unfortunately he was prevented being there, and had requested him to propose in his name the addition of these words to Rule 6: "Together with the names of one nominee from each division for membership on the Council, such nomination to be made at the Divisional Meeting and forwarded to the General Secretary." Dr. Rayner wished him to say that the sending out of a blank form would lead to unsatisfactory results, would be unfair in many respects, and that on the whole the difficulty would be met by having these nominations.

Dr. WHITE said that this proposal involved the whole principle of election. The Committee had been very carefully into Rule 6, and it was the only practical way in which the question could be settled.

Dr. MERCIER pointed out that a vote on this point had been taken and lost at the preceding meeting, in which the President concurred.

Dr. HACK TUKE withdrew the amendment.

Dr. SPENCE said he would like to stick to the old plan, but he would give the entire body of the Association power, by sending them a list of names a month before the meeting, of putting their pens through one or two of the six and substituting such men as they thought would be better suited. That would be proxy voting, and would save the Council the ignominy on the day of election of finding they had abundant papers without a single name put on any one. For the purpose of bringing this matter to some sort of conclusion, he would propose that the following be added to Rule 6: "That the names of six gentlemen to fill the vacancies on the Council be placed on the nomination list by the Council, such list to be furnished to all members one month before the Annual Meeting, so that any member may be able to delete the name, or names, of any or all of the proposed members and substitute the name or names of any other member or members of the Association whose consent to serve has been received."

Dr. WHITE seconded, and said he foresaw very great difficulties and very doubtful elections to the Council if the present system was carried out. He

could imagine there would be many instances of blank forms received, and also one or two facetious nominations which would be hardly acceptable, yet for want of sufficient guidance these nominations might be successful, and might tend to bring discredit upon the Association. He was perfectly certain the old system was the only one which they would find would work in the future.

Dr. NEWINGTON said he was quite in sympathy with what Dr. Spence and Dr. White had said, and had seen from the first that mischief would follow throughout the proposed nominations, which resolution, he believed, was founded on an utter mistake.

Dr. MERCIER pointed out that the whole difficulty arose from the inconsiderate rejection at the last meeting of the recommendation of the Rules Committee that there should be a nomination in every case, that the nomination should not come from the Council, but from any two members of the Association at large. The Rules Committee at the same time provided a form of nomination in which the member nominating undertook that his nominee was able and willing to fulfil the duties of a Councillor.

Dr. Spence's rider was put to the meeting, and carried by more than two to one.

On putting the rule with the addition as a substantive motion, Dr. NEWINGTON proposed an amendment that it should be stated that any member present at an Annual Meeting could substitute a name for that on the nomination paper in respect of any office, which was carried.

Rules 7 to 14 were passed.

On the proposition of Dr. MORRISON, seconded by Dr. WHITCOMBE, it was decided to add the words "*pro tem.*" to Rule 15; and with this addition the rule was passed.

CHAPTER IV. (MEETINGS).

On Rule 3, Dr. CONOLLY NORMAN proposed as an addition: "And shall at the earliest possible date issue to each member of the Association a circular notifying each member of the forthcoming meeting, and requesting the contribution of papers and other scientific matter therefor." He remarked that it would involve a slight alteration in Rule 4, that was the substitution of "a" for "the" in the first line.

Dr. SAVAGE seconded, and it was carried.

Rule 4 was amended as above.

On Rule 8, Dr. MERCIER thought £50 was far too large a sum, and he moved that it be reduced £10. He remarked that it was impossible for the Association to stand the financial strain upon it if they went on as they had been going on in the past.

This was put and lost.

Dr. WHITE proposed that the sum be reduced to £25, which was carried.

CHAPTER V. (COMMITTEES).

Rules 1 to 10 were passed *en bloc*.

APPENDIX TO RULES (III. THE GASKELL PRIZE).

On the proposition of Dr. HACK TUKE, it was decided that the heading to this section should read- "III. The Gaskell Prize and Medal (value £30)."

APPENDIX TO REGULATIONS.

On Form B, Dr. MERCIER said that at present it was not binding on candidates to conform to the regulations of the Association, and in order to make it so, a proviso should be inserted in Form B. He proposed that after the word "agree" in the third line should be inserted the words "to conform to the regulations of the Association, and."

Dr. NEWINGTON said the whole question was discussed at York, and it was finally decided that the matter should be settled in the form as now printed. There was a strong feeling that this certificate and all the provisions should remain untouched.

The amendment was not seconded.

Dr. WHITCOMBE formally moved that the rules as amended be adopted.

Dr. MERCIER seconded.

The motion was adopted.

Dr. WHITCOMBE moved that the Secretary be requested to send the amendments to the printer, omitting the word "Proposed" on the title page and the note at the top, and that he be empowered to take legal opinion upon the rules.

Dr. MERCIER seconded.

The motion was adopted.

The PRESIDENT—In order to let it be clearly known to members who are not here to-day, would it not be better to have a note in the Journal saying that these rules have been passed, and that due notice must be given for any proposed alteration?

Agreed.

The meeting then terminated.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

A General Meeting of the Association was held at four o'clock on Thursday, February 15th, at the Randolph Hotel, Oxford, Dr. James Murray Lindsay being in the chair.

The SECRETARY read the minutes of the last quarterly meeting, which were confirmed.

The following candidates were elected :—

CHARLES HENRY GWYNN, M.D.Edin., Co-Licentee St. Mary's House, Whitchurch, Salop.

WILLIAM F. FARQUHARSON, M.B.Edin., Assistant Medical Officer, Counties' Asylum, Garlands, Carlisle.

W. LLOYD ANDRIEZEN, M.D.Lond., Pathologist and Assistant Medical Officer, West Riding Asylum, Wakefield.

PERCY J. BAILY, M.B.Edin., Senior Assistant Medical Officer, London County Asylum, Hanwell, W.

HENRY M. CULLIVAN, L.R.C.P.I. and L.R.C.S.I., second Assistant Medical Officer, Richmond District Asylum, Dublin.

DANIEL F. RAMBANT, M.D., Univ.Dubl., Third Assistant Medical Officer and Pathologist, Richmond District Asylum, Dublin.

THOMAS S. McCLAUGHRY, L.R.C.S.I. and L.A.H.Dubl., Assistant Medical Officer, District Asylum, Maryborough, Ireland.

WILLIAM JAMES VINCENT, M.B.Durh., Assistant Medical Officer, Durham County Asylum.

THE RETIREMENT OF MR. CLEATON.

The PRESIDENT said the next business was a complimentary motion. It seemed only due, and their pleasing duty, to propose something as emanating from that Association with regard to Mr. Cleaton, who had retired from his post as Visiting Member of the Lunacy Commission, a post he had adorned for so many years. (Applause.) Dr. Conolly Norman would propose a motion, which would be seconded by Dr. Savage.

Dr. CONOLLY NORMAN, the President-Elect, proposed—"That this meeting has learnt with regret the retirement of Mr. Cleaton from his post as Visiting Member of the Lunacy Commission, after a long and distinguished service. The Association feels that Mr. Cleaton's kindness and clear judgment have been of the greatest service in his work in the Lunacy Department, and they hope he may live long to enjoy his well-deserved leisure." He remarked that Mr. Cleaton had had a very long service in the Commission, and the universal testi-

mony of all who had known him had been that the work he had done had always been of an honest and straightforward character, and that his abilities and assiduity in his labours had been of very great service to the officers of the asylums of this country. He thought, therefore, the Association should not permit him to retire without expressing its feelings about him.

Dr. SAVAGE seconded the proposition, and said he had known Mr. Cleaton for a quarter of a century, and he had added great strength and great kindness to the Commission. One could always feel, as a medical officer of an asylum, that there was a friend on the Commission who was always willing to look upon their work from a kindly standpoint. He had ever been ready to aid by his advice those who came to him, and he knew Mr. Cleaton would welcome this mark of esteem from the Association very warmly.

Dr. WHITCOMBE fully agreed with the resolution, and said he could not, from his own experience, speak too highly of the general kindness, and, at the same time, the straightforward and honest criticism he had always met with and seen and heard from Mr. Cleaton.

Mr. MOULD said he had had the honour of Mr. Cleaton's friendship, and although, as he dared say some of them knew, he sometimes differed from him, he could say that no more honest and no more straightforward Commissioner was ever appointed. He hoped those who were in his shoes now would do their work as well and straightforwardly. If they did they would have the same respect for the Commissioners as they always had.

Mr. RICHARDS said that when he was first appointed as superintendent he had rather a peculiar Committee to deal with, but Mr. Cleaton, when he came round, gave him his most cordial support, and led him to infer that if only he did his duty conscientiously, as far as he was concerned, he would do all he possibly could—he would not say to give him good reports, but to keep him right with the Committee. This kindness which Mr. Cleaton had extended to him as a young superintendent he believed he had also extended to other young superintendents when they required assistance.

The proposition was put and carried with enthusiasm.

THE NEXT ANNUAL MEETING.

The PRESIDENT announced that the Council had come to the conclusion that the Annual Meeting should be held in Dublin about the 12th or 13th June, the exact date to be fixed by the President-Elect.

OUR TRIALS AND TROUBLES.

Dr. WEATHERLY read a paper with the above title.

The PRESIDENT said he was sure they were all extremely indebted to Dr. Weatherly for his very true and instructive paper. For his part, he did not think the picture was overdrawn. He thought it had been nicely painted, and the light and shade filled in very ably, and that there was no one present who had had any experience at all who could not recall instances illustrating the various points in the paper. He thought they ought to thank Dr. Weatherly very much for his useful and able paper. (Applause.)

Dr. SPENCE said he heard the Lunacy Commissioners abused right and left, but he thought there was something to be said in favour of the recertification of lunatics, especially in large asylums. As to the difficulty about the periods not terminating on a certain day in the year, he thought it would save an infinity of trouble if superintendents were to certify twice a month, on the 1st and 15th.

Dr. MERCIER said he should like to say one word also in commendation of the last Lunacy Act. It was an Act which had very few friends, and everybody was delighted to have a kick at it; but that particular provision for the recertification of patients he believed to be one of the most beneficial ever introduced into an Act of Parliament. He believed nothing was ever done which was more for the benefit of the insane than the provision that they should from time to

time be re-examined, and the state of their minds thoroughly investigated at stated periods. Dr. Weatherly had raised many points one would like to touch upon. With regard to the number of patients uncertified under private care he did not think Dr. Weatherly at all exaggerated. He knew of a considerable number of cases that were so cared for. In particular he knew of two cases which were consigned to the care of a country clergyman, and in both cases it was considered that a course of prayer, if sufficiently urgent and earnest, would be sufficient to bring about the recovery of the patient. In both cases it proved an entire failure, and one of them came to him in the last stage of emaciation, in consequence really of want of food. It was a case of refusal of food, which ought to have been fed from the beginning, but instead of feeding they prayed for him, with the natural result.

ASYLUM NURSES AND ATTENDANTS.

Dr. MENZIES read a paper on "The Future Supply and Status of Asylum Nurses and Attendants."

The PRESIDENT considered their best thanks were due to Dr. Menzies for his very able and suggestive paper, which teemed with pregnant hints, evidently the result of careful and close observation. There was no doubt that some of his hints would have to take practical shape, and before very long in all probability. The questions of diminished hours of labour, increased leave, better and more varied dietary, and better provision for recreation and amusements would certainly force themselves both upon superintendents and visitors. Some of his other suggestions might take a longer time to realize, but Dr. Menzies had given a programme full of so many items that it would certainly take some time to see the realization of them all. He (the President) hoped Dr. Menzies might live long enough to see his programme in its entirety in active operation, with the exception of the asylum canteen, about which he had his doubts. He was not prepared to take Dr. Menzies' view as to the abolition of beer in asylums. In his experience and the experience of many others—in fact, he thought of the majority—it had been a very good and useful movement in asylums, for he had never yet found anyone who could tell him the dietetic or stimulant value of asylum beer at fivepence halfpenny a gallon. If beer was to be of any use it should be of stimulant and dietetic value, and a brewer would laugh at them if they asked him what the nutritive value of beer was at fivepence halfpenny. If beer was given at all it should contain some useful elements, but apart from that he thought Dr. Menzies' paper was in the right direction. It aimed at a very high standard of improvement in their asylums. There was no doubt there was great room for reform, and the great obstacle would be the well-known one of expense. He believed in education, and agreed with Dr. Menzies that some effort should be made to try and educate Committees, ratepayers, and Boards of Guardians. It was a very difficult matter, but still it was not insuperable. The process of education was slow and gradual, but it was to a certain extent effective more or less.

Mr. RICHARDS said he agreed with nearly the whole of Dr. Menzies' suggestions, but there were one or two points on which he differed with him. The first was the alteration of the hours of asylum work from six o'clock in the morning to seven. Many years ago they tried that experiment at Hanwell for the winter months. The Chairman was under the impression that it would save the gas, and it was tried for three or four months, but at last they were obliged to return to their old hour of six o'clock, because they found that the routine work could not be done in the forenoon. He believed they were the pioneers at Hanwell in erecting a nurses' sleeping block. When the plans were submitted to the Commissioners in Lunacy there was a long correspondence between them and himself as to the number of nurses they were going to keep in the wards. He was for reducing these to nearly a minimum, but the Commissioners would not hear of it, and the consequence was they could only build for two-thirds of the nurses. The Commissioners' argument was this, that in case of fire it was absolutely

necessary to have a large number of nurses in the building. He believed the Commissioners had still that idea, and it would be some long time before they would be able to endorse what Dr. Menzies had suggested, that they should all sleep out. He quite agreed with Dr. Menzies, and thought the question of fire was a mere bogey, as the nurses could all be summoned in sufficiently short time to be efficacious. He agreed with Dr. Lindsay in his remarks about the canteen, and did not think it would answer. He did not know if a rule was to be made that the beer should be drunk on the premises. If not the attendants would take it into the wards, and some of them would give it to the patients. They all knew that the patients who used to do work for the attendants were the ones that got the extra beer. The attendant would be extremely bold indeed and hardly likely to bring in such a bulky thing as beer from the outside. He was not quite so sure that knocking off beer for the nurses and attendants had been a very good thing. The beer was knocked off at Hanwell three or four years ago. He had left it for two years and went over not long ago and noticed the nurses looked pale and anæmic. He spoke to the matron about it, and she said the only thing she could attribute it to was the knocking off the beer. There was something in alcohol that aided digestion and enabled the nurses to assimilate their food much better than without that gentle fillip. Dr. Menzies had made no remarks about head-attendants or under-matrons. Their hours were just as long and anxious almost as the nurses, and comparatively little had been done to shorten their hours of labour. They did at Hanwell do something by arranging that the nurses who came on duty one morning at half-past five did not have to come on duty the next day till ten. As to the main point of Dr. Menzies' paper he thought they must all hope, as Dr. Lindsay had said, that they might live to see those very good reforms carried out.

Dr. FINEGAN said that although there were a great many of the details of Dr. Menzies' paper which one might find very difficult to carry out at the present time, the principle of the paper was very good, and he thought Dr. Menzies deserved special credit for taking this matter upon his own shoulders, although it belonged properly to superintendents. He thought Dr. Menzies deserved all the more credit for cutting the ground under the superintendents' feet, and showing them what their duties were. To his mind a great deal of the defective nursing staff at asylums at the present time was entirely due to superintendents—himself to blame amongst the number. He was sure if superintendents were to make greater efforts in the direction of improving their staff more progress could be made than had been the case for the last twenty years. Hospital nursing had become quite a rage, and ladies of birth, education, and accomplishments took up hospital nursing for the love of it, for the want of something better to do, not as a means of livelihood, but as a means of occupation. He certainly thought if asylum nurses were treated in the same way as hospital nurses were treated, life in an asylum would be infinitely preferable to life in a hospital. He did not by any means encourage the doing of menial work by nurses, but he had encouraged them to superintend the work and encourage the patients to do it. Some of the patients in his asylum were paying a high figure, but they had to polish their own boots, make their own beds, clean their own wards, and do everything for themselves which in a great many other places would be done by junior nurses. His impression was that the more work the patients did for themselves the better it was for them, and more especially if they had been accustomed to an idle life. He invariably told the nurses he did not expect them to do the work themselves; he expected them to see the work done, and that they should be an ornament to the ward with a neat apron and cap, and something to look at. With regard to the certification of nurses it was now their own fault if they had not a certificate, as the Psychological Association had put it at their own doors, and he thought superintendents should encourage the Psychological Association in their efforts by making it a *sine qua non* that all the superior posts should be filled by persons who had the nursing

certificate from the Psychological Association. To his mind the woman who had some qualifications was infinitely better than one who had no qualification beyond that of her birth, and he thought if any superintendent brought this matter before his Committee and told them it was an absolute necessity that people must have some training before they came into an asylum, he did not think the Committee would refuse.

Dr. MENZIES, in reply, thanked them for their kindly criticisms. He did not intend them to be kindly; he brought forward radical suggestions to have them cut up. As regards the beer everyone seemed to jump upon the canteen; all he could say was, it had never been tried. No one claimed that there was any dietetic advantage in beer; all that they said was that the attendants thought there was, and thought they could eat better with it. Mr. Richards mentioned the getting up at seven instead of six. Under the amended programme a great deal of the ward work would be done before the patients got up, because he suggested that the ward maids should begin duty at 5.30. He had not mentioned head-attendants and matrons because each superintendent at the present time was doing something for them. Then as regards appointing to the higher offices those who had the Medico-Psychological certificate, one could only say that the time was not yet come. The majority of the best nurses had not got the certificate, and had not the intelligence to acquire it. Their older attendants could not sit down to study, but they all hoped that the time would come in the near future when they would be in a position to get certificates, and then they could make it a *sine qua non* that all promotions to charge of wards and other subordinate posts would be filled by holders of certificates.

CAUSATION AND INCREASE OF INSANITY.

Dr. HACK TUKE said that Dr. Chapman, who was announced to read a paper on "The Causation and Increase of Insanity," was unfortunately unable to be present, and had sent him his paper, suggesting that it should be taken as read. He himself, having read it through, thought it was hardly the paper to read at the present time. Therefore, if the meeting desired it, he would inform Dr. Chapman that his suggestion was adopted. This was agreed to.

Obituary.

JOHN MANLEY, M.D.Edin.

As Dr. Manley has retired for some years from his post as Medical Superintendent of the Hants County Asylum, the announcement of his death (January 3rd, 1894), did not occasion so much surprise among his friends and former colleagues as if he had died in harness, but he is no less lamented.

Dr. Manley was son of the Rev. John Manley, Vicar of Hittesleigh, Devon, and for 30 years Head Master of the Queen Elizabeth's Grammar School, Crediton, in the same county. From him he received his early education, and afterwards studied at King's College, London. He graduated at the Edinburgh University in 1848, and passed his examination at the London College of Surgeons and the Apothecaries' Hall in 1854.

Immediately after taking his M.D. degree he became a pupil of Dr. Boyd at the Somerset County Asylum. He was subsequently for two years the Assistant Medical Officer at the Gloucester Asylum under Dr. Williams. His next appointment was that of Assistant Medical Officer at the Devon County

Asylum for a year and a half, where he had the advantage of being under Dr. Bucknill. Writing in 1852 the latter spoke warmly of his qualifications, adding that he had benefited to the utmost by the opportunities he had enjoyed under Dr. Boyd, Dr. W. W. Williams, and himself.

From 1854 to 1885 he was the Medical Superintendent of the Hants County Asylum, where his long and faithful services are still held in grateful remembrance.

His success in asylum administration and the warm interest he took in medico-psychological questions were fully appreciated by the Association, in recognition of which he was elected President in 1884. Unfortunately, however, his health broke down, and he was obliged to withdraw his name while President-elect. He had decided on the subject of his Address—namely, Heredity in relation to Insanity. During a visit we paid him at Knowle we found him greatly interested in this subject, and we had long conversations with him in regard to the frequency of hereditary transmission of mental disorder. In one of his Annual Reports of the Asylum (about twelve years ago) he records the number of patients who had been in the asylum, and were related, so far as he was able to trace them.

Dr. Manley contributed articles to this Journal on Epilepsy; Homicidal Lunatics in County Asylums; Cases of Moral Insanity; and a Case Resembling General Paralysis.

Dr. Manley was obliged, in consequence of paralytic seizures, to leave the asylum in 1885. For seven years he lived at Southsea, and then removed to London, residing at Tulse Hill for a little more than two years, till his death in January. His speech was much affected, but he took the greatest interest in all that went on in the world, and did not, like some, resign his membership in the Association because he had resigned his asylum appointment. Last summer he suffered from a severe attack of dysentery, from which, however, he quite recovered, and was remarkably well until the end of last December. The day before his death he had a paralytic seizure. Dr. Manley's name will be added to those Medical Superintendents of our large county asylums who have devoted their time and energies to the benefit of the patients, and have helped to place them in the high position which they have held in this country. These services, unostentatiously rendered, and, for this reason, imperfectly appreciated by the public when death calls the workers away, should be recalled, and the excellent and humane work which they have done should be recorded.

GEORGE JONATHAN HEARDER, M.D.,

Late Medical Superintendent at the Joint Counties' Lunatic Asylum,
Carmarthen.

We regret to have to record the death of Dr. G. J. Hearder, which occurred at his residence on January 24th, 1894.

In November last he was confined to his room by an attack of influenza, but recovered sufficiently a few days before Christmas to resume his duties at the asylum. On Boxing Day he was again taken ill, and his second attack proved to be more severe than the first. The usual after-effect of influenza (pneumonia) had set in, and from this his condition appears to have caused the greatest uneasiness until the 24th ult., when he died peacefully.

The deceased was born at Plymouth in 1839, and was therefore fifty-five years of age when he died.

He was educated at Edinburgh University, where he took his degree of M.D.

He removed to Carmarthen in 1867 from Worcester Lunatic Asylum, where he was engaged as Assistant Medical Officer. Since his residence at Carmarthen the asylum has been revolutionized both with regard to the internal arrangements and the outside appearance.

The asylum then bore no resemblance to the picturesque aspect which it presents now. It was then probably not half its present size, and was devoid of all architectural beauty. The grounds which surrounded it were quite uncultivated, and innocent of paths, shrubs, or any of the other beauties which now make it one of the most handsomely-situated buildings of the kind in England or Wales. All these additions and improvements are due to the untiring efforts of Dr. Hearder.

He was a man of instinctive business capacity and unflagging zeal. His mind was constantly occupied in plans for bettering the accommodation for patients and adding to their general comfort and happiness.

Once he took a project in hand he would not rest until it was accomplished. There was no detail, however small, in the management of the large institution which he had under his care with which Dr. Hearder was not perfectly acquainted, and he maintained an accurate knowledge of all that happened in connection with the asylum. He took a great interest in meteorology, his residence was the registered station for the district, and was included in the printed list.

His collection of British butterflies and moths was a celebrated one, and he was an expert in this science. He also followed the science of astronomy closely, and possessed a very fine telescope, with which he continually pursued the study of the heavens.

All this contributed to make his life an unusually busy one; but with all the stress of work which he undertook, he never forgot to closely watch the welfare of those who were placed in subordinate positions under him. Dr. Hearder leaves a family of seven sons and five daughters. One of the sons, Dr. Fred. Hearder, is at present engaged as assistant medical officer at the Carmarthen Asylum.

THE ANNUAL MEETING, 1894.

THE NEXT ANNUAL MEETING OF THE ASSOCIATION will be held in DUBLIN, under the presidency of DR. CONOLLY NORMAN JUNE 12th, 13th, and 14th (three days).

Circulars containing further particulars will be issued in due time.

FLETCHER BRACH, M.D.,

Hon. Sec.

11, Chandos Street, Cavendish Square, W.,

March 20th, 1894.

SCOTCH DIVISIONAL MEETINGS.

We are requested to state that in future the Divisional Meetings of Scotland will be held on the 2nd Thursday of November and of March.

THE NEW RULES.

At the adjourned Annual Meeting, held at Oxford, February 15th last, it was proposed by the President, and agreed, that in order to let it be clearly known to Members of the Association not present, notice should be given in the Journal that the New Rules have been definitely adopted, and, further, that if any alteration is to be proposed, due notice of the same must be given, before the Annual Meeting in Dublin, to the Hon. Secretary, Dr. Fletcher Beach.

Appointments.

ADAM, W., M.B.Ed., appointed Assistant Medical Officer to the Grahama-town Asylum, Cape Colony.

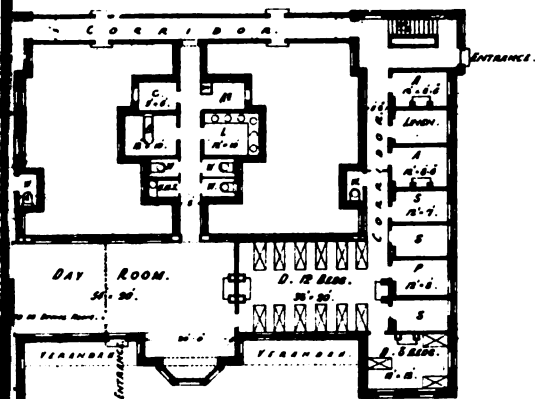
MACKINTOSH, W. A., M.B., C.M.Ed., appointed Medical Officer to Simpson's Asylum, Plean, Stirling.

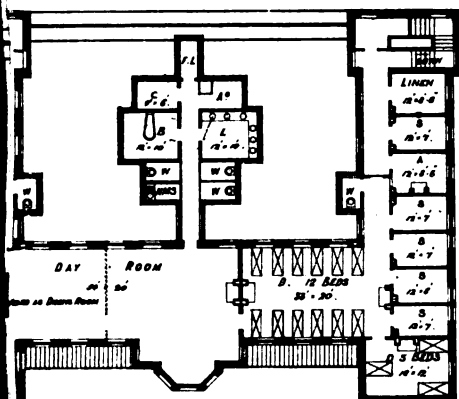
BRUSH, S. C., M.B., C.M.Ed., appointed Clinical Assistant to the Horton House Asylum.

ROBINSON, F. C., M.B.C.S.Eng., L.R.C.P.Lond., appointed Fifth Assistant Medical Officer to London County Asylum, Colney Hatch.

TRAGQUIE, J. H., M.B., C.M.Ed., appointed Junior Assistant Medical Officer, Staffordshire County Asylum, Burntwood, Lichfield.

NOTE.—The next Examination for the Certificate and for the Gaskell Prize of the Association will take place at Bethlem Hospital, in July. Candidates for the Bronze Medal and Prize of Ten Guineas must send in their Essays to the President before the 30th of May, 1894. Particulars of the Examinations for the Certificate and Gaskell Prize and of the Essay can be obtained of the General Secretary.





SUB-ACUTE WARD.

SCHEDULE of ACCOMMODATION						
— FIRST FLOOR —						
CONVALESCENTS	MALE	FEMALE	AREA and SQU.	PATIENT CUBIC	TOTAL.	
DORMITORY	4	4	52	624	60	
DO	4	4	57	684		
DO	14	14	54	648		
DO	4	4	57	684		
SINGLE ROOMS	4	4	84	1008		
DAY ROOMS	30	30	42	504	54	
<u>SUB-ACUTE</u>						
DORMITORY	3	3	72	864		
DO	3	3	72	864		
DO	12	12	55	660		
SINGLE ROOMS	9	9	84	1008		
DAY ROOM	27	27	45	540	114	
				TOTAL.		

J. A. WILLIS M.D. SUPT.

SIMPSON and DUCKWORTH ARCHTCTS.
RICHMOND CHAMBERS: BLACKBURN, Jan. 94.

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JULY, 1894.

VOL. XL.

PART 1.—ORIGINAL ARTICLES.

On the Separate Treatment of Recent and Curable Cases of Insanity in Special Detached Hospitals, with Plan and Description of Buildings about to be erected for this purpose at the Lancaster County Asylum, Whittingham. By JOHN A. WALLIS, M.D., Medical Superintendent of the Lancashire County Asylum, Whittingham.

Dr. Clouston opened a discussion on this subject at one of the meetings of the Psychological Section of the British Medical Association at Newcastle, and I attended purposely to take part in the discussion and show the plans which I propose to describe in this paper.

I noticed with much interest the movement in Scotland to provide special hospitals, but I thought the plans published in the "Journal of Mental Science" some time ago were suited rather to the requirements of the ordinary sick and infirm; and I was not surprised to hear Dr. Howden say that at Montrose the hospitals were used chiefly as an ordinary infirmary, most of the recent cases being treated in the main asylum buildings.

Dr. Macpherson informs me that he finds the Stirling Hospital, though in most respects it follows the plan of the one at Montrose, very useful for most of the recent cases, though some of the ordinary sick and infirm patients are also treated there, and a medical officer resides in the building. Dr. Clouston, while treating some of the recent cases in his hospital, uses it chiefly for the sick and infirm. I propose that the special hospital at Whittingham shall be reserved exclusively for those only of the recent admissions who are either considered curable on admission, or at any rate are doubtful as to curability. All obviously incurable cases would be excluded, as there are excellent infirmaries both at the annexe and at the main building for the ordinary chronic

cases of sickness or infirmity. I will briefly touch upon the reasons which set me thinking on the subject of special buildings for the treatment of recent curable cases, and then proceed to describe the proposed new building.

Shortly after my appointment to the charge of the asylum at Whittingham I discovered that the curable cases were unfavourably situated there as regards the promotion of their recovery, from the scanty and insufficient nature of the accommodation allotted to them. This was clearly demonstrated in 1882-83, when, owing to the opening of the annexe buildings, and the other asylums in the county having no vacant beds, our admission rate was a very high one.

The original buildings at Whittingham, I may shortly say, for the information of those who have not seen them, are on the pavilion or block principle, and consist of a series of blocks, of two and three storeys respectively, connected by corridors on the ground floor, the whole forming in outline a sort of horse shoe, the blocks lying on the circumference of the shoe. This arrangement is in most respects an admirable one, securing the isolation of the blocks, avoiding the annoyance to the patients of being overlooked by or overhearing the noises in the adjacent wards. The pavilions are amply provided with windows, and have abundant cross ventilation. They are of two sizes, four of them providing accommodation for about 70 patients, six for about 100 patients each, and two of the largest, having a contiguous corridor and a number of single rooms, accommodate about 150 patients each. There are eight connecting corridors, four in each division. Two of these have just been alluded to; the others are used as separate wards, and afford day room space for 25 patients each, with a corresponding number of single sleeping rooms, seventy-five of each sex—150 in all. So much for the main building. The annexe is simply a repetition of the large blocks, six in number—four for 80 patients each and two for 150 each, placed about 200 yards from the main building.

We have, therefore, but six small wards of 25 beds each, in all 150 beds for the treatment of all recent admissions, as well as the noisy, excited, and violent cases arising from time to time in a population of 1,860 patients. Two of them in either division are reserved for the more excited and violent of the chronics, leaving but one ward of 25 beds on either side for the reception of the new admissions. This is manifestly inadequate accommodation, and there is still the

further disadvantage that the six corridor wards are the only channels of communication between the blocks on the outside of the horse shoe and the administrative and central portions of the building. Quietude is therefore out of the question, and there is a constant traffic of patients and attendants who are on their way to and from the stores, kitchen, visiting rooms, dispensary, dining-hall, or sewing-room or laundry. These wards ought not to have served as corridors of communication, but distinct and separate corridors for traffic ought to have been provided. Were these wards perfect in themselves they would still be insufficient for the proper classification of the violent and noisy patients and for the reception of the newly admitted. Many of these are suffering on admission from worry, overwork, and other exhausting influences; the most important indication of treatment for them is perfect rest of mind and body. They require isolation from other patients, especially from those whose insanity is marked by excitement or other objectionable peculiarities, or is obviously confirmed or incurable. The presence of the latter class of patients in a reception ward acts most prejudicially on many of the recent admissions. Again, an essential portion of an admission ward is an associated dormitory to be used as an observation room at night. There is no such dormitory in the receiving wards at Whittingham, and many of our recent admissions have every morning and evening to be removed a considerable distance into another ward where an observation dormitory is to be found. The collecting of these patients twice daily and their removal at a time when the attendants' energies are fully taxed is not without inconvenience or even danger. A perfect reception ward should be self-contained, capable of providing for its patients' needs and circumstances both by day and night. Another result of the very limited capacity of our admission wards is the compulsory removal from them of patients who have just begun to improve to a large ward of at least 70 patients. This premature removal from the home-like surroundings of the small wards, and from the care of nurses or attendants with whose appearance and good offices the patient has become familiar, is but too often followed by the most unfortunate results. A nervous, timid creature turned adrift in a large place among a lot of fresh faces and strange people, having to make friends with new attendants, flurried by the greater bustle and movement, but too often suffers

a relapse, and falls into his former state of terror, refuses food, and has to be returned to an over-crowded reception ward. In the same way an unstable, excitable creature removed too soon from the good influence of close personal supervision and quiet surroundings loses the amount of self-control he has regained, and returns to a state of excitement when subjected too soon to the more trying circumstances of a larger ward.

Then there is the difficulty of supervision of recent admissions scattered over a population of many hundreds of patients. It is very difficult for an assistant medical officer to maintain a close connection with recent cases when he has five or six hundred patients to look after, and as for the medical superintendent of a large asylum, with his multifarious duties and responsibilities, it is manifestly impossible for him to keep in touch with the recent patients, especially when they must be so soon drafted into the larger wards, and yet he ought to be in a position to direct their treatment, especially when they may occasionally be in charge of young and comparatively inexperienced medical officers.

While noticing the deficiencies of the asylum as regards the accommodation for recent admissions, I must not be understood to detract in any sense from the very great and striking merit of Mr. Hollands' plan, the admirable features of which will always secure to this asylum its pride of place as a splendid example of asylum architecture, a noble monument to the sagacity and originality of its designer. He intended that many of the wretched and feeble admissions should be sent at once to the infirmary wards, but this practice, which has been followed to some extent, did not commend itself to me, the wards being too large, accommodating 80 patients, and being too straggling to admit of close supervision, besides saddening and depressing the new-comers by the sights and sounds inseparable from the presence of the sick and dying, general paralytics, consumptives, etc.

Having fully satisfied myself that some extension of the admission wards was absolutely indispensable, I began naturally to approach the consideration how and when to get it, and in my earlier years I had the idea of obtaining the necessary wards by jutting out day rooms and corresponding dormitories at right angles to the galleries by the sacrifice of a few single rooms in the line of the corridors. I was strengthened in this opinion by an inspection of the

exceedingly delightful wards contrived at Prestwich in this fashion, by my colleague Mr. Ley. A visit to Prestwich would prove nothing short of a revelation to some of the superintendents of the older asylums, who may be worrying at the problem of how to modernize and adapt a badly-arranged old building. However, the time was inopportune for any new work, as the county of Lancaster was saddled with an enormous expenditure on the four annexes, and as years went on I was less inclined to suggest patchwork alterations and additions to the old asylum buildings, which could only prove more or less unsatisfactory, and would have materially prejudiced the airy and well-extended character which so happily distinguishes Mr. Hollands' work. Further, the more I considered the question of reception wards the more firmly was I convinced that the true solution of the question was to be found in the erection of a suitable building quite separate and detached from the original asylum. In 1892, when the last of the annexes was almost fully occupied, I made an exhaustive report on this subject to my committee, and obtained their sanction to submit a sketch of what I deemed necessary. This sketch was subsequently elaborated, with the assistance of Messrs. Simpson and Duckworth, architects, of Blackburn, into the plan which I now propose to describe, and the description may be easily followed by reference to the lithograph which accompanies it.

The centre is, as usual, devoted to administrative purposes, and has to the front the medical officer's residence, which has on the ground floor two assistant medical officers' sitting-rooms, a dining-room, and a medical office; a small lavatory and w.c. on either side, and two staircases leading to the rooms above. There are also found on the basement in the rear of these rooms a porter's office and bedroom, and a large room to be used as a lecture-room for the classes of instruction for nurses and attendants. Immediately behind these will be found entrances for the use of patients which give access to an admission-room for either sex, also serving the purposes of a visiting-room. In the first plan there were separate visiting-rooms, but these were eliminated in order to keep down the cost. Still further to the rear will be found the main administration corridor, with a dispensary and a drug store opening from it, and the domestic offices, comprising kitchen, vegetable and washing-up sculleries, a tea-room, larder, bread store, small stores for groceries, etc.,

cook's room, servants' hall, and attendants and nurses mess-rooms, also a raw-meat store, dairy, and coal-cellar. Over the servants' hall and cook's room there will be found on the upper floor bedrooms for the cook, kitchenmaids, and housemaids. Returning to the front the staircases lead to a third sitting-room for the pathologist, three bedrooms for the medical staff, and two spare rooms for clinical clerks, a bath-room, and w.c., a linen store and a good billiard-room for the medical officers. Over dispensary and visitors' room will be found a pathological laboratory, chemical and bacteriological room, and a photographic room and dark room cut off from the medical officers' quarters by a glass corridor over the entrances, and having a separate staircase accessible from the main corridor, so that the photographic studio may be used for ordinary photographic purposes for the patients when not required by the pathologist for microphotography or other medical purposes. In the original plans a winter garden or recreation room was designed to give exercise, drill, and recreation to the patients in wet weather, but this was also sacrificed for the present, at any rate, at the stern dictates of economy, as were also the Turkish baths, lest the expense should wreck the scheme; but certainly these should be added, and may be easily arranged for by the removal of the three small stores at the end of the kitchen block, when the recreation room might be erected with separate entrances from either administrative corridor. The Turkish baths could be located on the northern aspect of the communicating corridors.

Returning to the main corridor, a small residence for the chief nurse and head attendant is interposed between the medical officers' quarters and the infirmary block, which will be next described.

Reception wards for the sick.—This occupies the ground floor of the first hospital block. It is designed on the lines of an infirmary, and is intended for the reception of those admissions in which there is serious disturbance of the bodily health.

It consists of a day-room, with a separate dining-room, with scullery, and ward store, a sick dormitory, with 12 beds, and four single rooms opening out of it, also a special sick-room for a surgical operation, a lying-in case, or any case which might require isolation. Near the dining-room is a small attendants' sick-room, with an attendants' room next to it. Two more single rooms, a four-bedded dormitory for

the use of the ward cleaners, and another bedroom for an attendant complete the arrangements of this ward, with the further provision of a block at the extremity of the day-room, which contains the closets, bath-room, and lavatory, coal-cellar, and receptacle for ashes, dirty linen closet, and housemaids' sink.

Alternative staircases lead at either end of this block to the upper floor, where similar arrangements provide for a convalescent ward. The accommodation on the upper floor is for thirty patients; that on the ground floor for twenty-three patients, four of whom would be chronic quiet ward cleaners.

Acute block.—The second block for acute and excited patients is on somewhat similar lines, but it has more single rooms, and the day-room space is larger, relatively, because of the more excitable class of cases to be provided for. It has also a small additional day-room, with bath-room and closet, occupying the space allotted to sick attendants in the first block. This is for any very noisy or specially obscene or objectionable case which it might be found advisable to treat by isolation.

On the upper floor of this ward the same arrangements will, with some modifications, provide for twenty-seven convalescents. The ground floor accommodation is for twenty-three acute and excited cases. The four wards just described accommodate 100 patients, and are repeated on the female side, 200 patients thus being provided for in all.

The type of ward is based upon the plan approved of by the Commissioners for special epileptic wards. It is selected on account of its simplicity, which allows of easy supervision. Each ward is complete in itself, and enjoys plenty of light and cross ventilation. Each of the four large dormitories may be used, and is intended for use as an observation dormitory.

The main idea intended by the special hospital is to convey to all patients admitted into it an impression of hopefulness and the probability of recovery. For this reason, and to beget a feeling of confidence, no locks will be used on the outer doors during the day time, and no enclosed airing courts are intended; the buildings open directly on the pleasure grounds, and the site selected is an open space, with a due southern exposure. The safety of the patients will be secured by the very ample nursing staff, which will be of more than double the ordinary proportion, composed

of a full staff of the very best attendants and nurses in the asylum, supplemented by a large proportion of probationers, who will enjoy first-rate opportunities of learning their duties. Their practical training will devolve upon the charge attendants of the hospital wards, and they will receive a careful grounding in the theory of nursing, some elementary physiological knowledge, and special clinical instruction from the medical officers. All attendants, save the artisans and some farm men, will pass through a six months' residence in the hospital; and these people will enjoy, at any rate, the courses of lectures and instruction given by the medical officers. It will be the aim of everyone concerned to individualize the treatment of each patient as much as would be the case in an ordinary hospital. Each attendant would be trained to study the hourly variations of a small number of patients, and notes would be made of every change or phase, however slight or momentary, in the condition of any patient, their notes being presented to the medical officer daily.

Another point in connection with the large staff at the hospital and the training school for nurses. For some years I have held the opinion that our public asylums, being built and supported by the public rates, have a duty to the public which is certainly not fulfilled. I allude to the supply of trained mental nurses for the use of those who can afford to pay for them. We all know that the supply of first-class and thoroughly trained nurses for mental cases is extremely limited, and that those who pay for them do not often get what they bargain for, the class of professional mental nurses or attendants being largely recruited from the least desirable section of our attendants. In the exercise of what I felt to be a duty I have allowed the services of some of my best nurses and attendants to any medical man in the neighbourhood of the asylum urgently requiring them, and I have always found the results to be eminently satisfactory when the practice has been judiciously guarded and controlled. An extension of this arrangement would be possible under the working of the new hospital, and would be productive of much public good, and, if properly organized, of some actual financial gain to the asylum, besides acting in other beneficial ways, such as providing a change of work or a reward for good conduct.

There would be no fixed diet scale in the reception wards,

but the dietary of the patients would be varied as much as need be, each patient receiving that which best suited his personal wants. There would be, therefore, no jealousy and no grumbling. Each patient would feel himself an object of special interest to his attendants, he would soon know everyone about him, and the small size of the rooms and freedom from restraint would be productive of the best possible results upon his mental state.

First impressions in asylums are of great moment, as everyone will admit. In every ward would be found none but favourable influences, those under treatment being constantly encouraged by the recovery and discharge of those around them.

The medical officers in charge of the hospital will have every opportunity of doing first-rate work there, untrammelled by the burdensome clerical and medical routine incidental to the charge of several hundred patients.

The medical superintendent will be able to spend a considerable portion of his time in these wards daily, and will keep in close touch with all the curable cases. The medical staff, which will include clinical clerks, will enjoy better opportunities for engaging in original research, and the result will be a quickening of the medical spirit in the whole asylum, resulting, let us hope, in much gain to those who are brought to the institution for care and treatment. Certain it is that all large asylums should be provided with hospitals such as I have attempted to establish at Whittingham, and I rejoice to learn that similar additions are in prospect at the large Yorkshire asylums. It has seemed to me that the chief defect of large asylums is to be found in the huddling together of large numbers of insane persons in one long range of buildings. The gallery principle, which seems to die hard, is surely out of date nowadays. Asylums should be designed in small colonies or groups, more homelike and less like institutions. They would obtain the great advantage of perfect lighting and abundant cross ventilation. There would, of course, be a centre of medical life—the hospital—another division for the excitable of the chronic population, and simple home-like blocks for the chronic population. A central administration would supply all these parts quite easily, and without any great expense. Every building could have a southern exposure without difficulty, whereas, under the conglomerate principle, more than half

the wards look east, west, or north. Asylums built after this manner could be added to at any time without scheming or contriving, or difficulty, often ending in compromises effected at the cost of sound planning. Danger from fire would be reduced to a minimum. Any block which might be the scene of an outbreak of infectious disease would at once become an isolation hospital, and a spirit of emulation would be kept alive in each asylum unit which would make every part of the institution a centre of effort, largely conducive to the highest state of efficiency. Considering the grievous amount of asylum building which has been thrust upon the whole country by the mischievous operation of the Government grant,* much money might be saved by the introduction of such a method of asylum planning, for many of the new candidates for asylum care are merely fatuous old persons for whom the simplest accommodation would suffice. The county authorities are being called upon to provide accommodation for imbeciles which should be more properly provided by the guardians. Let them, therefore, provide nothing more costly.

I am satisfied that the working of the hospital on as liberal a scale as I have suggested—*i.e.*, as liberal as the scale of an ordinary hospital—would not tend to raise the maintenance of the whole asylum, but rather the reverse. My opinion is that where the curable cases are scattered all over the place it is difficult to avoid keeping up a standard dietary and supervision by attendants, which are probably in excess of the requirements of the rank and file of asylum residents. A more exact classification and the removal of the curable cases would enable the management to raise the few and reduce the many to such a standard of expenditure as is needful for their just requirements; the reduction in cost thus arrived at would more than cover the increased cost of the few who, after all, are not to be grudged, even by the most economically minded ratepayer, anything in reason likely to hasten their return to the condition of bread-earners.

*See Journal for October, 1893, p. 606.

The Trials and Troubles and Grievances of a Private Asylum Superintendent. By LIONEL A. WEATHERLY, M.D.

When our worthy Secretary asked me to read a paper, my difficulty in giving a direct affirmative answer was not so much the trouble and time the writing of such a paper would involve, but rather the choice of a subject. To give the outlines of some special case, to make a few remarks, and to hear the President, after thanking me, and waiting in solemn silence for the spirit to move some member to start a discussion, call upon the reader of the next paper, did not strike me as worth the trouble; besides, one cannot always have a "special case" on tap in a small private asylum.

To anticipate my taking up any point of pathological or physiological interest would, I fear, be akin to expecting an omnibus-driver to be capable of steering an ironclad.

What, then, was I to write about?

Being worried one day with a discontented patient to the right of me, with worrying relatives of an inmate to the left of me, with a lazy and careless attendant behind me, and a nasty leak in a newly-made roof in front of me, the idea suddenly started from my irritated brain that I had never heard anyone declaim before an audience of sympathisers concerning the trials, the troubles, and grievances of an asylum superintendent.

I know full well that the worries of a private asylum manager can be but infinitesimal when compared with those of the superintendent who, possibly by some economical members of his County Council, is considered over-paid, for work involving the administration of a small town, and the looking after the mental and physical health of several hundred lunatics. Still, our life is not exactly what I in my ignorance described it when, after giving up private practice and blossoming into a full-blown asylum proprietor, I called my new departure "Retirement into private life with a hobby." Would it were so!

Public Opinion.—Do your duty and hang public opinion may be very well theoretically, but, I fear, practically, as Perkyn Middlewick would say, "It don't wash."

Unfortunately the *vox populi* when raised against private asylums is a voice profoundly ignorant of what it is shouting about.

Those who know anything about the manner in which these homes for the insane are conducted know and realize perfectly well that if the proprietor does not do his duty by those entrusted to his care, if he does not study carefully the individual idiosyncrasies of his unfortunate household, he soon, metaphorically speaking, "cuts his own throat," and makes a horrid mess in doing it.

This ignorant public is for ever hinting that we keep patients who ought to be at large, simply and solely for the £ s. d. we get from them; that it is only natural we should do so; that it must always be the case; and, consequently, that private asylums should be abolished.

We are all, I am afraid, in this world inclined to look after self-interest. Self-interest and ambition, to a certain extent, go hand in hand. Do away with either and progress is at a standstill.

Granted, then, that we are the self-interested individuals some would make us out to be; I maintain that this self-interest compels us to do all we can to give our asylums a good name; a name for kindness to our patients; a name for a good percentage of recoveries; a name for freedom of complaints from our patients; but certainly *not* a name for detaining patients who are sane.

With the constant supervision and inspection of our houses, with the freedom of communication with the outer world enjoyed by our patients, our self-interest, our ambition must be to have our institutions spoken well of. It is the only hope we have of succeeding in our branch of the profession.

The man who cries out the loudest for lunacy reform, for greater safeguards against illegal incarceration and detention, is almost invariably found to be without the slightest practical experience of the subject.

He it is who declaims from public platforms, who writes to newspapers about the iniquities and the inadequacy of the lunacy laws, and who, if his wife, his sister, his cousin, or his aunt become insane, will knock the loudest at your front door and demand immediate admittance for his mentally afflicted relative; and when you inform him that there are certain formalities to be gone through, such as a petition to sign, a magistrate's order to procure, and medical certificates to be duly filled up, he it is who stares at you aghast, and wants to know what is the meaning of all these obstructions to that immediate treatment, which he now recognizes not only as best for the patient, but best for him too.

Our Patients.—In ordinary medical practice the patient knows and feels that his doctor is doing his utmost for his benefit, whether that be by helping on his recovery or by alleviating his hopeless disease.

How different is it with many of those whom we have to treat. Not realizing that they need either medical care or moral control they resent all we wish to do for them. I don't say they are all obstructive to our efforts to treat them either morally or medically, but that this resentment, and consequent resistance to an attempt to do our best for them, are not the least of our trials must, I think, be admitted.

Then we have that *bête noir*, the discontented and complaining patient. The complaints are so sane, so plausibly worded, and so very possible; the discontent seems so reasonable to those unacquainted with the patient's mental peculiarities, that the distortion of facts, the gross exaggeration of grievances, cannot be readily seen; and even our clear explanation of them may not always be believed in by those to whom they are made.

I do not know anything which would have been more likely to have lost Job the gold medal for patience than to have had to live for a few weeks with a circle of discontented lunatics under his immediate care.

Often does such a case tax our forbearance to its uttermost, often must we feel inclined to answer back sharply, and words which would afterwards have been regretted are almost spoken; but our knowledge of our poor patient's state of mind is ever present with us, and "the kindly heart sends a telegram to arrest them on the very lips."

It is the thousand and one such grievances and such complaints which, though at first, may be, are as water on a duck's back, still gradually leave their mark, and like the drip, drip, drip on the hardest stone, after a few years the effect can be but too plainly seen. We do all we can to please them, we go out of our way to almost anticipate their wishes, or to prevent what we fancy may be annoyances, only to find that our attempts are futile and the "discontent still reigns supreme."

The anxieties which the suicidal patient brings upon us are impossible to adequately describe. We give our definite instructions, but we cannot be ever present to see that they are faithfully carried out; and if the artfulness and cunning of such a patient can, and often does, deceive us, surely we

must not be too harsh upon the attendant, whose gradually gained confidence in his patient is suddenly betrayed.

Then again what a tax upon our peace of mind is the presence of the patient, who is always planning an escape, and whose attempts, if successful, may give us hours of anxiety, which seem to take years off our life.

I have just recently had such an one transferred from our care, and the relief felt is only proof of the amount of anxiety now happily gone.

Another trial which we all have to undergo is the medical treatment of many of our patients when physically ill.

To begin with, how often have we solely and wholly to depend upon objective symptoms for our diagnosis? The ordinary medical man would be greatly nonplussed if he got the answers we often have to hear to questions put to a patient. I have under my care an old gentleman whose physical condition has required for a long time a great amount of looking after, and I can honestly say that, though mentally capable of giving a correct answer as to his feelings, I have never yet succeeded in getting one. Generally he has at once consigned me to the hottest place on record, or threatened to knock me base over apex if I dared attempt to feel his pulse. All this is not productive of definite diagnosis.

The Patient's Relatives.—Our first introduction to the relatives of those to be placed under our care brings us, many times and oft, face to face with the question as to what constitutes the code of morality, with regard to the truthful answering of questions concerning family history. I do not for one moment mean to insinuate that all relatives come to us fully having made up their minds to either evade these questions, or to prevaricate, or to tell absolute falsehoods; but I do say that to gain an accurate and straightforward family history of many of those who are to be treated by us is no easy matter.

Why the fact of insanity being in a family should be looked upon by the public as tantamount to an acknowledgment of criminality I for the life of me cannot see. That it is so, is, I maintain, a fact. I well remember a lady, known for her Christian principles and unswerving truthfulness, coming to ask me to receive her sister into my asylum. A prognosis of the case was important, and I was desired to give as definite a one as I could. Naturally I at once questioned her as to any possible hereditary taint. My lady

was firmness itself in her negative answers. In the course of further conversation, however, she happened to mention that her mother was ill in bed, and added, "Perhaps it is after all the safest place for her." I do not know why I should have thought there was something behind this last expression of opinion, but I did, and my question, "Why is it the safest place for her?" elicited the answer, "Well, doctor, you see the last time my dear mother was up she kept trying to sit on the fire, thinking it was an arm-chair." No more questions were asked, and the entry in the register had a definite cause marked down as a predisposing factor in the case.

I now come to one of the most difficult and worrying tasks which, to my mind, is placed upon us in dealing with the relatives of some of our patients. It may be that I have unfortunately in my short experience had more of this difficulty than others, but I cannot help fancying that it has always existed, and must always be one of our trials and anxieties. I allude to the distinct differences of opinion among the relatives of some patients. More often, I think, it exists between the wife and her relations and the immediate relatives of the insane husband; and the class of case more likely to give rise to this difficulty than any other is general paralysis of the insane. The husband's relations, not allowing for a moment that anything in their family history could have at all predisposed to the insanity, are inclined to blame the wife, and hold her responsible for a great deal of her husband's condition; and why this is so, is, I think, not very difficult to understand. As we know, in many cases of general paralysis, suspicion, irritability of temper, and jealousy are often the only early symptoms of the disease, and these are especially shown to the wife, whilst to his own relatives, for a very long time, he may appear much in his usual condition of mind.

The poor wife, not realizing that these are symptoms of a disease, at first, maybe, gives way to them, and then resents them, whilst keeping all strictly to herself. Letters she is writing, visits she is going to pay, reasons why she is late that evening, or why she refuses to go out with her husband, all these are not explained to him. If he is suspicious, let him be; she has nothing to hide from him, but she will no longer give way to his absurd whims and fancies. Time goes on, he gets worse, and at last the terrible truth dawns upon her that he must be going out of his mind. She con-

sults her doctor, she speaks to her own relatives, and finally to his. The former confirm her suspicions, the latter regard them as impossible. At last definite delusions and insane actions take place, and an asylum is his future home. Now mark what happens. His delusions of jealousy and suspicion are exaggerated. They have become systematized concrete delusions, and are very definitely and plausibly told and written to all who come in contact with him. And they have just a vestige of truth about them. The wife cannot deny that she did write letters he did not see, though he demanded to do so; that she did stay out later than usual on more than one occasion, and gave him no explanation, etc.

In some cases, to my knowledge, the husband's relations have believed (on the principle of no smoke without fire) that something has been wrong, and are firmly persuaded that it has been the wife's conduct alone which has brought her unfortunate husband to this sad condition. And this direful friction and constant family feud continues till the grave closes over our patient; and, maybe, long after too.

Some of you may say I have overdrawn my picture. I can only state that in no less than three cases of general paralysis which have come under my care during the past eight or nine years what has happened has far exceeded what I have here only touched upon, and that my attempts to explain matters and to keep the peace have not only severely tried my temper, but in two of the cases were absolutely futile.

In one case I myself walked with the poor wife to the graveside, whilst her husband's relatives only put in an appearance at the cemetery, and did not even deign to notice the one who should have been the object of their pity and sympathy.

The Powers that be.—The trouble, the toil, and irritation which the new Lunacy Act has caused us need not be dilated upon here. No Bill of modern times has been so heartily damned by all who have any practical experience of the treatment of the insane. There is one part of this Bill which, however, I must just touch upon, as I cannot but think it might readily be amended without in any way altering the spirit of the Act.

It is the clause relating to the renewal orders. At present, I am sure, this clause must be a positive curse in the large asylums, and I should be interested to know how many patients have during the past two years had to be recertified

in consequence of it. Why on earth the maker of this wonderful Bill could not have arranged for all renewal orders to come due at certain specific times of the year—quarterly or half-yearly—I quite fail to see. It would mean nothing to the patient's detriment, and would be an immense boon to the already red-tape-driven asylum superintendent.

I believe I am right in saying that when this Act was first drafted it was intended that only a few cases of insanity should be eligible for single care, and great restrictions were consequently placed upon this mode of treatment.

As some of you may be aware, I have always been an advocate for this plan of dealing with many cases of insanity, and I was glad, therefore, to see the mooted restrictions were removed. But although I have in the past, and do still, often advise single care, I have always considered that it should have more supervision devoted to it, and that only suitable persons should be allowed to carry it out.

What do we now find, however? In spite of the law, in spite of the penalties and punishments to be inflicted on those who break it, there are at this present moment more uncertified lunatics living in private houses than ever, and in many cases several living under one roof, in utter defiance of the law, whose reading is so clear, so plain.

I am told, by a person well qualified to know, that when the last census is published it will tell this tale to an extent few would credit.

Why do not prosecutions follow? Why is this breaking of a wise law allowed to go on openly in our midst? To us, with our every action hemmed in by Act of Parliament, it does seem hard that this open defiance of the law should go on without let or hindrance. The Commissioners, I am sure, would be only too ready to institute prosecutions in cases brought to their notice if they thought that their trouble and the expense therein involved would be repaid by some adequate and deterrent punishment.

To start a criminal prosecution, and after heavy expenditure and weeks and hours of labour to find the accused person mulcted in some trifling fine, or only bound over to come up for judgment if called upon, is so disheartening that I do not wonder at the apparent apathy of the only persons who can start a prosecution for the breaking of what I consider a very wise and useful law.

That this state of things is manifestly unfair to all private asylum proprietors cannot be gainsaid.

With regard to the Commissioners in Lunacy and the visitors appointed to provincial licensed houses, I feel sure they all do their duty in as kind and as pleasant a manner as possible; and I myself always look forward to these official visits, feeling that they are bearing, at least to a slight extent, some of the weighty responsibilities attached to our branch of the profession.

If there is anything that a possible captious critic might carp at, it is, I think, that the Commissioners are a little apt to try and discover some cause for fault-finding and a little too chary in encouraging the asylum proprietor to further improvements by giving praise where praise is due. It is a little trying when at one visit of the Board some alteration is advised, and is promptly carried out, and possibly the suggestion considerably added to, to find when the next visit is made no attention whatever is paid to what has been done, no notice taken of your ready carrying out of their wishes. Complaining may and often does do good, no doubt, but for my own part I believe encouragement does far more.

There is one item in all balance-sheets under the head of "Renewals and repairs," the total amount of which might astonish some of those who may complain because a piece of carpet is somewhat faded, the leather-stuffed chairs beginning to show signs of wear, or a little of the paint rubbed off the skirting. It might be news to them to hear that it is only by very carefully attending to expenditure in this direction that our profits can be at all made commensurate with our capital sunk, our individual work, our worries and anxieties.

I often wonder when a Commissioner points out some trifling defect in the binding of a sofa whether the patient lying upon it with his dirty boots on has at his own home all his furniture spic and span, as if just arrived from an upholsterer's shop.

We private asylum proprietors have not the large surplus over and above our yearly expenditure which the balance-sheets of some of the hospitals for the insane are able to show, a surplus which allows them, no doubt, to be kept in the very pink of perfection, and which should enable them to do far more of those charitable works for which I always understood they were instituted; nor have we at our backs that wonderful and long-suffering beast of burden, with hardly a kick in him, the British ratepayer.

I have one little grievance against the way in which the visitors' reports in many licensed houses are made. It is quite right and only reasonable that the clerk should write the first part of the report, dealing with the number of patients resident, the number of admissions, discharges, and deaths, but I do think the remainder of the entry in the visitors' book should be dictated by the visitor himself, if only to prevent the monotonous repetition of the stereotyped sentences: "All the patients were seen. There were no complaints. The house was in good order."

I have heard, but I cannot vouch for the truth of the statement, that in some asylums the clerk is busily engaged in writing the report while the visitors are going round.

Attendants.—The man who expects perfection in anything in this world is doomed to bitter disappointment. The superintendent who looks for it in his attendants is, to my mind, fast qualifying himself for a situation as an inmate of his own establishment.

I may at once state that I am not one of those who look upon attendants and nurses as the cause of the greatest of all our worries and anxieties. "Judge others by yourself" may be a rule not always safe to go upon, but if we prelude that rule by the words, "First puty ourself in their place," we shall, I think, be able to look at the difficulties of our attendants' position in a truer and fairer spirit.

Do we rightly recognize these difficulties, more especially in private asylums? It must be embarrassing to the attendant with the most reasonable mind to have to act the part of servant at one moment to the patient entrusted to his care, and then by having to see that the general rules of the house and the instructions we give with regard to this individual patient are carried out, to pose, as it were, as his master.

Give me attendants and nurses who feel an interest in their work, who have kindly hearts, and are liked by the patients, and I can, and do, overlook many, what I then call, minor faults. Only let those faults be known, so that they may be guarded against. The dangerous attendant, to my mind, is your plausible individual, who is always doing right, who can never, no never, do what is wrong. This is a veritable wolf in sheep's clothing, and one to be avoided, and the sooner out of your house the better for your future peace of mind. I think, perhaps, we are a little too apt, in our endeavour to try and get a "perfect staff," to make a

first offence the last offence, and not to give that chance to the erring attendants which often means the turning over of a new page in their life's history.

I am, then, still ready to allow that the procuring and looking after an adequate staff is no light work, and carries with it many trials, many worries, and costs us many an anxious hour; nevertheless inclined to believe that it is *not* the greatest of the burdens we have to bear, and that on the whole we should be contented that we are able to get fairly competent persons to carry out some of the most trying and harassing duties falling to the lot of those who have to earn their own living.

To at all adequately give a fair summary of our trials and troubles in the short time allotted to a paper would be impossible, and I have not attempted it. I have only lightly touched upon a few of them, and in doing so I trust you will admit that I have not in any way taken too pessimistic a view of what we have to bear.

This paper has been written in no complaining spirit, but simply with the object of ventilating and discussing some possibly not altogether insurmountable difficulties in the pathway of our individual work. I can only end by saying, —would it had been better done!

On Affections of the Musical Faculty in Cerebral Diseases. By
WILLIAM W. IRELAND, M.D.

A modern philosopher has revived the theory that music has been evolved out of speech; but even adopting the leading views of the evolutionists, this theory seems little in accordance with their own methods. The harmony of sound appears very low in the animated kingdom, whereas the faculty of speech is the last and highest endowment. Some insects and spiders have the power of producing sounds. This is generally effected by the aid of beautifully-constructed stridulating organs. "The sounds thus produced," Darwin tells us, "consist in all cases of the same note repeated rhythmically, and this is sometimes pleasing even to the ear of man. Their chief, and in some cases exclusive use, appears to be either to call or to charm the opposite sex."

The lowest form of air-breathing vertebrate animals, frogs and tortoises, emit musical notes at the period of

courtship. In birds singing may be said to constitute a language giving expression to the feelings rather than to the conceptions. The variety of notes in the nightingale is so great and prolonged that one might almost say he had the gift of poetry. If the intelligence of the bird were gradually increased through the development of the brain, language would naturally come out of singing; its speech would be song. Music is a gift attaching to a much lower organism than speech. In many children the perception and enjoyment of musical tones comes before the faculty of speaking or the understanding of speech. Some can hum tunes before they can speak. Richard Wallaschek gives a striking instance of early precocity in music.* The son of a musical composer and director, when no older than eleven months, long before he could speak of his own accord, sang the beginning of songs which he heard in the house. At that time "Hush, hush, hush, here comes the Bogey Man," was in every mouth. The child, having often heard this song, when the first word was spoken to him at once took up the tune, singing the three first words, though he otherwise could not speak, and could scarcely be expected to understand the meaning of the words.

Idiots have a turn for music quite disproportioned to their other mental faculties, and not unfrequently those who cannot speak at all can hum tunes correctly. The wonderful construction of the internal ear, and especially of the organ of Corti, puts the vibrations in the outer world in unison with its own tensioned fibres, and thus prepares them for reception to the brain without any difficult effort of adjustment. Music thus appears to be a rudimentary endowment which demands a much lower capacity than that of speech, and is less liable to be destroyed in mental decay.

Though distrusting those speculations by which naturalists pretend to show that one mental faculty is evolved from another, I venture to suggest that we might discern the first traces of the musical faculty in those rhythmical movements which are noticed in idiots of the lowest class. I have observed such cases rocking their bodies and keeping time by whistling or emitting some uncouth sounds. Amongst savages music seems to have a close connection

* See his paper, "Die Bedeutung der Aphasie für die Musik Vorstellung," in "Zeitschrift für Psychologie und Physiologie der Sinnesorgane," Band vi., 1 Heft.

with dancing. The native Indians in Guiana wear necklaces and other pendants from the body and limbs which by their jingling keep time with the dances. Throughout the East it is customary to combine labour with chants or choruses, the one being made to keep time with the other. All the world over such exercises as rowing, dredging, or rocking the cradle are accompanied by song. As Sir Charles Bell has observed, "This disposition of the muscular frame to put itself into motion with an accordance to time is the source of much that is pleasing in music and aids the effect of melody." One, therefore, might rather say that speech was evolved out of cries and musical sounds than singing evolved out of speech. It will scarcely be questioned that music is no technical division, but a special faculty of the mind. The phrenologists located their organs of time and tune in the fore-brain, but this has been abandoned along with the rest of Gall's system. Otherwise no attempt has been made to assign the musical faculty to any particular area of the brain. Of all talents bestowed upon man that of music is the most apt to be transmitted by heredity. All the great composers belong to musical families. Sebastian Bach had sixty descendants who were amongst the best-known organists and composers in Germany. What is thus so often propagated must have a deep root in the organism.

While the disorders of speech have been studied with great care and no little gain to psychology, the affections of the musical faculty in cerebral diseases have met with little attention.

There is a parallelism between music and language which Dr. Brazier has stated with admirable clearness in an elaborate paper in the "*Revue Philosophique de la France*."* In both processes we make use of symbols which may be evoked through motor, auditory, and visual images. The musical note may be mentally sung or played, mentally heard, read, or written, as the letter, the phonetic symbol, or the word may be mentally pronounced, heard, or written. In ordinary speech, as in music, the education commences through the ear and by the auditory centres; then there is a certain training of the vocal apparatus to realize the auditory perception. Speech as well as music is learned through imitation by efforts made in childhood, but it requires a special education and more systematic efforts to

* "*Troubles des Facultés Musicales dans l'Aphasie*," Vol. xxxiv., p. 337.

learn to read musical notes than to read words, and at last the individual learns to trace these signs and to write musical notes or words. One imperfectly acquainted with music reads slowly and with difficulty, and is obliged to play or sing in order to realize the signification of the characters, just as a half-educated man reads aloud to help himself to understand the full meaning of what he sees. In those who have a great talent for music which has been highly cultivated, the musical characters awake auditory representations, so that some gifted musicians are able to arrive at an idea of the value of a symphony by solely reading without hearing it played. It is well known that injury to a defined area of one hemisphere may deprive a man of the power of speaking, leaving his other faculties intact; but we are at a loss for instances where injury to any part of the nervous system entails a loss of the musical faculty without other damages to the mental capacity. Probably the reason is that musical power must be on both sides of the brain, and be exercised by both alternately when one side is disabled. In playing a musical instrument both hands are generally in use, the left hand often as much as the right. In playing the violin some of the most delicate work is performed by the fingers of the left hand amongst the strings. In playing the organ both hands and feet are used. It is likely that in singing the innervation comes from both hemispheres much more than it does in speaking.

There is no question that there is a connection between music and speaking which sometimes is hardly separable. All speech has some tone in it; generally the voice is in a medium, but painful emotion causes it to rise in the scale, or sometimes to sink. A child commences to cry in a tone nearly ordinary, but as it goes on it takes a higher note.

In some languages, like Italian, euphony is everything. The increase of the musical tendency in speech leads to poetry, which, though coming close upon singing, still requires a distinct talent of its own. I have known a good many instances in which men indifferent to music were fond of poetry, and have a delicate ear for the time and cadence of verse. Though they could not detect a false note in playing, they would immediately notice a false quantity or if the verse were a foot too long. This shows that there is a distinction between the melody of tones and that of verses.

In motor aphasia the power of musical expression is generally injured, though sometimes in a small degree.

Dr. Knoblauch has described the case* of a little girl of six who suffered from nephritis after scarlatina. She was seized with general convulsions, and remained unconscious for five days. After this consciousness slowly returned, but she was found to have right hemiplegia with aphasia. Later on she was able to say "mamma" with a few words. She could sing the song "Weiss du wie viel Sternlein stehen" with the right melody. The words of the song were properly pronounced when she sang, but she could not repeat them in a speaking voice nor voluntarily repeat single words of the same. She could quite well understand what was said to her. She had not learned to read or write. Dr. Gowers† had a patient in whom the whole of the motor speech region of the left hemisphere was destroyed through embolism of the middle cerebral artery. He could only say "Yes" and "No." One day another patient in the ward began to sing "I dreamt that I dwelt in marble halls," when the speechless patient joined in, sang the first verse with the other patient, and then sang the second verse by himself. Dr. Gowers observes that the words were used automatically, and this utterance must have been effected by the right hemisphere.

The child was for two months in the Clinical Hospital of Heidelberg, where she was treated by Professor Erb with iodide of potassium and the application of the galvanic current to the head. She was at the same time methodically exercised in speaking. In a month she was able to repeat the song without singing it; in two months she could utter most words and make herself understood, although she could not form sentences. As the arm had improved the child was discharged after being nine weeks in the hospital.

I myself had under my care a boy of nine years of age. Apparently he had always been deficient in his mental faculties; but his mother said that he could speak a little before he had an attack of varicella, after which he had much fallen off in intelligence. He was passionate, capricious, and resistant. He never could be got to put on his clothes, though he took them off. This boy understood a few simple observations or directions, and seemed to have sufficient intelligence to have spoken a little; but he remained obstinately mute, only now and then uttering a word or two mostly under the influence of excitement. He was fond of

* "Brain," 1890, p. 320.

† "Diseases of the Brain," London, 1885, p. 126.

music, and could hum four or five tunes, singing the words of a verse here and there, or when someone else was singing he would join in with a few words and go on singing. Among the songs which he thus sung in part were "I'm off to Philadelphia," "The Boatie Rows," and "She is my Annie, I am her Joe." All attempts to get him to speak the words without singing were in vain. I had hopes that by encouraging him in singing and exercising his muscles by gymnastic drill he would come in the end to speak, but he was far from being a docile pupil, and only improved slowly during the year he was under my care.

I have heard of a patient in a hospital in London who was paralyzed on the left side. She could not speak in an ordinary voice, though she could say what she wanted in singing. She used broken sentences, always singing them.

Dr. Griffen * reports the case of a girl of eighteen who talked in a low, husky voice, but could sing with a full clear voice. Nothing abnormal could be found on laryngoscopic examination. It was regarded as a case of hysterical aphonia. The affection lasted 11 months, and was finally removed by encouraging her to sing, and getting her by degrees to speak what she had sung.

Dr. L. Frankl Hochwart † has studied the injury to the capacity for musical expression in five cases of aphasia. In all of these the musical power was injured, though in a less degree than that of speech. One patient, a man of 50 years, had hemiplegia of the right side. The power of speaking and understanding words, and also of reading and writing, were reduced to a minimum. Suddenly he began to sing. This gave him great pleasure, but he never got beyond the first measure of the same melody. Thus, though he could sing words which he could not speak, the power of musical expression was much diminished. Of the four other cases of aphasia all suffered from paralysis of the right side. All retained the capacity of understanding words. In three of them the power of speech was lost; in the fourth, a woman, there was great deficiency. All had been good at music. It was found that none of these four patients could sing spontaneously; but they could sing after the words were sung to them. One of these had been a good player on the violin; another on the piano. The first could not play on

* In the "New York Medical Journal," 20th May, 1893.

† "Deutsche Zeitschrift für Nervenheilkunde," quoted in the "Neurologisches Centralblatt," No. 21, 1891.

account of the paralysis of the right arm, but could indicate the strings to be touched; the other could play on the piano with the left hand. Both could play from the music book, but could not sing from it. In both patients the power of playing music was much diminished. In all the cases in which speech was lost the musical faculty had suffered, though in a much less degree. Nevertheless, as Dr. Frankl Hochwart tells us, cases have been described by Finkelnburg, Bouillaud, and Limbeck, in which there was aphasia without injury to the musical faculty.

The counterpart of motor aphasia would be a patient who kept the power of speaking while he lost the power of singing or of musical expression. Dr. Frankl Hochwart tells us that there is no record in which the power of musical expression alone was lost; but something nearly approaching to this is given by Dr. Brazier from a written communication which he received in 1873. Barré, a tenor, who sung the important part of the *Petite Fadette* at the Opera Comique, was suddenly seized, during the representation of the play, with a complete amnesia; neither the orchestra nor his comrades, who tried to prompt him, could succeed in reviving his memory. He did not understand any more what they sung, and could not himself sing a note. When he got back to his lodgings he understood ordinary language, and answered to what was said to him, but it was found that not only the piece which he was singing, but all the pieces which he had learned had faded from his memory, both music and words. He recovered in some months, and was able again to take up his parts. In this case it is clear that the words were forgotten as well as the music. We are not informed whether any other mental faculty was deranged.

Wallaschek mentions a number of instances in which musicians suddenly forgot their parts in operas or concerts. It would be easy, however, to give other instances of actors in ordinary plays failing to recollect what they had to repeat, although they did not lose the power of answering what was said to them. This may be owing to a failure of facultative power, brought on by emotion or fatigue. It sometimes happens that persons under the influence of exhaustion have found themselves unable to speak in a foreign language, though they could use their own. On taking rest or some refreshment, or otherwise recruiting themselves, the power of speaking the foreign language returned.

Wallaschek tells us that the celebrated singer, Emile

Scaria, when performing at the Opera House in Vienna, came sobbing to the manager and said that he must have a special assistant—some one must be near him on the stage to whisper his part to him ; the ordinary prompter was no longer sufficient. The company saw with increasing concern the singer's condition get worse. Two years after, at a performance of *Tannhäuser*, it was observed that Scaria could not be expected again to appear in public. The derangement seemed to consist in impairment of memory, which affected his recollection of words rather than of music. Scaria himself announced that it was Bismarck's wish that he should carry on the management of the theatre at Bayreuth. This he had taken up on the death of Wagner. But though Scaria had been entertained at Bismarck's house the Chancellor had never sent any such message. On one occasion Scaria went into a shop in Vienna and ordered a fur coat for the summer which should be lighted with a shining light from the inside. All this indicated insanity.

The counterpart of word deafness, or sensorial aphasia, would be the incapacity to distinguish musical from other sounds (sensorial amusia, *Tontaubheit*, of Wallaschek). As a general rule in sensorial aphasia the capacity for distinguishing tones is preserved. Some people, however, are born with a great incapacity for musical sounds, what is called no ear for music. Brazier speaks of a man who cannot distinguish one note from another in the ascending scale of the piano ; every note struck seemed to give out the same sound. I once heard a Professor of Music say that a man told him he could not distinguish between the sound of a violin and a trumpet. There are soldiers who never can learn the bugle calls.

Dr. Brazier cites no less than fifteen authorities who have mentioned cases of what may be called sensory amusia (*Tontaubheit* or *surdité musicale*), the result of brain disease. Brazier lets us know that these observations of alteration of musical perception only occupy a few lines amongst lengthy descriptions of word deafness, and that they have been but slightly studied. Dr. Brazier describes the case of a patient who came under his own observation. This man suffered from attacks of ophthalmic megrim, during which there were passing fits of motor aphasia, lasting from four to five hours. On one occasion when Dr. Brazier called the patient was seized with megrim. There was no aphasia, but he

could not distinguish musical airs. The Marseillaise was being played by a military band, but, though he could hear quite well, the patient could not distinguish the tune. He said that he heard nothing but a noise of brass. Dr. Brazier now found that he could not distinguish tunes on the piano with which he was usually familiar. As this singular condition passed away the same evening there was scarcely time for conclusive examination; but the case indicated to Dr. Brazier's mind the possibility of tone deafness occurring isolated and independent of word deafness.

Lichtheim tells of a man who suffered from word-deafness. He could hear well enough when one whistled or sang, but could not recognize the tune. He used to enjoy hearing his children sing with four voices, but now he told them to stop, saying that they cried too loud.

In cases of aphasia which have been carefully studied it has been sometimes found that when the power of writing has been lost that of reading musical notes has also gone; but there are instances in which these two abilities have been lost singly.

Dr. Oppenheim has published clinical notes* of seventeen cases of aphasia in which the musical faculty has been the subject of careful inquiry.

The general result of these observations was that the musical faculty survived the loss of speech in aphasics. In some of Dr. Oppenheim's patients the other mental powers were evidently injured. After the memory for melodies the memory for numbers was found to be the best preserved. Some after losing the power of speaking words could still hum tunes, others could sing songs, and one could even repeat songs in an ordinary voice, though he could not utter a word towards conversation.

Out of these seventeen persons in whom there was aphasia, with more or less destruction of the left hemisphere, the musical faculty was only extinguished in two cases. The most interesting of Dr. Oppenheim's patients was a man aged thirty-five years, an accomplished musician, and a member of an orchestra. He became subject to motor aphasia, with hemianopsia bilateralis dextra, but with no paralysis. Besides being unable to speak, the understanding of words was somewhat diminished. He could not

* "Ueber das Verhalten der musikalischen Ausdrucksbewegungen und des Verständnisses bei Aphasischen," von Dr. Hermann Oppenheim, *Charité Annalen*, xiii. Jahrgang, s. 345.

read ordinary letters, but could read and write ciphers, count and add numbers together. Though he could not write to dictation, he could copy writing, but slowly, and with many mistakes. If started with the first words of a song he could go on with the melody, never singing false. If difficult passages from an opera which he had not learned were sung to him once or twice he could repeat them correctly. Though he could not read ordinary letters, neither Latin nor German, he could quite well read and copy musical notes or write them to dictation. With little thought he wrote the C major scale, the C major chord, and similar sequences in musical notation.

He performed on the violin, but with less than his former skill. He complained that owing to the hemianopsia he could not follow with his eyes the motion of the bow. He said that during two nights there were people playing near him. He could distinguish the sound of a piano or violin, a violoncello, a hautboy, and a clarionet. Though this was a hallucination he was so convinced of its reality that he asked the attendants in the hospital to prevent the music during the night.

On the other hand, there are instances related by Finkelburg, Charcot, and others of patients who, without any aphasia, lost the ability to read music, while still able to perform from memory and reproduce the airs which they heard. There is the celebrated case recorded by Bernard: an old lady who taught the piano, though suffering from motor aphasia, could still pronounce the words of the airs which she remembered. She could read the titles of the pieces and the words of the songs placed between the lines of musical notation, though with some hesitation, but could not in any way understand the musical notes. Dr. Brazier gives from his own observation an example of complete blindness to musical signs (*amusie visuelle*) without any mixture of alexia or word-blindness. A teacher of the piano, aged 36 years, much accustomed to read music, after suffering for the whole day from megrim on the left side, in the evening found that she could not read musical notes. Her sight was unaffected, and she could read ordinary print or writing. This singular condition passed away on the third day.

Cases have been also reported of aphasics who could copy music which they had become unable to read. It is obvious that motor paralysis may much affect the power of musical

expression as exercised through playing on an instrument. Charcot has observed a player on the trombone who had lost the memory of the associated movements of the hand and mouth necessary for performing on his instrument. At the same time all his other motor memories remained unaffected.

Dr. Brazier has shown that musical airs are sometimes associated in the mind with auditory representations, or with motor representations or motor impulses, with contractions of the tensor tympani muscle, or with slight movements of the throat or larynx. Sometimes music is associated with the sounds of the voice, or sometimes with visual images of musical notation, though this is rare. A musician may associate the melodies known to him with more than one of these forms. With different men the associations are different. From this we see that derangement of these associations might tend to embarrass or diminish the musical faculty. One whose music has been principally learned through singing would be more likely to have the faculty deranged in aphasia than one who did not sing, but played on an instrument, whereas any motor spasms or paralysis would injure the power required for performing on an instrument, and thus injure the capacity for musical expression. All this must be borne in mind in considering the derangements of the musical faculty, both in aphasia and insanity.

There are stages in the exercise of the musical gift which mark divers degrees of capacity. There is the simple pleasure derived from hearing musical sounds, the power of remembering a tune and repeating it by the voice, the power of performing on a musical instrument, the capacity for appreciating ideal high-class music, and, the highest faculty of all, that of composing new melodies.

As a general rule idiots have the capacity of receiving pleasure from music, and, as already said, mute idiots sometimes pick up tunes. When the talent for music is marked in the sane members of the family it is generally also marked in the idiot or imbecile. There are some idiots or imbeciles who do not care for music at all. On a careful examination of 180 idiots and imbeciles and 82 normal children Dr. Wildermuth * found that nearly one-

* "Untersuchungen über den Musiksinne bei Idioten, Allgemeine Zeitschrift für Psychiatrie," xlv. Band, s. 574. Berlin, 1889.

third of the idiots had a good capacity for music, and that 11 per cent. of the idiots and 2 per cent. of the normal children were destitute of all musical capacity.

The following is his table for the idiots and imbeciles :—

Of the 1st class.....	27 per cent.
„ 2nd „	36 „
„ 3rd „	26 „
„ 4th (musical incapacity) 11 ..	„

For the normal children :—

Of the 1st class.....	60 per cent.
„ 2nd „	27 „
„ 3rd „	11 „
„ 4th „	2 „

Dr. Wildermuth observes that the people of the village of Stetten, from which the normal children came, were known to have a good talent for music, and that all these children had received systematic instruction in music, whereas many of the idiots, being newcomers to the institution, had never got any such instruction. Taking this into consideration he thought that his examination proved that the musical faculty in idiots was a relatively high one.

Dr. Wildermuth found that many idiots were indifferent to sounds which most people think unpleasing, but this might be owing to their general indolence. On the other hand some showed antipathy towards tones and noises which are generally thought not unpleasant. One wept at the sound of a drum. An epileptic idiot was thrown into a state of angry excitement by the sound of a bell; a hydrocephalic imbecile by that of a wind instrument.

This aptitude in idiots has been taken advantage of in giving them musical drill. Of those who can speak many can be taught singing. This is done simply by the ear. Though it may be said that idiots have musical tastes and aptitudes which are not much behind those of normal children, they very rarely attain any skill in playing upon musical instruments. They are deficient in mental application, generally indolent, and habitually awkward in all bodily exercises. Nevertheless their talents for music present a striking contrast to their utter want of æsthetic tastes, of appreciation of the combinations of colours, beauty of form, or natural scenery. With idiots and imbeciles music is their greatest talent, and arithmetic their greatest deficiency.

We have accounts of some striking manifestations of

increased power in the musical faculty in somnambulism and hypnotism.* In these states the will is in abeyance and the sensibility of the auditory nerves much increased, hence it is not surprising that music should, as it were, draw the whole spontaneous attention. Musical hallucinations said to be of ravishing beauty are described as accompanying the delirium following the use of Indian hemp, in which the activity of all the senses is so much heightened. Increased power in musical expression may sometimes accompany the exaltation of mania, though it can scarcely be exerted otherwise than after an irregular fashion.

As far as my knowledge goes musical expression is best preserved in delusional insanity, but this might be said to hold good with most of the mental faculties.

Ribot has stated as a law of regression that the memory is constituted by a stratification of impressions mounting from the oldest to the most recent. It is destroyed by erosion from the most recent down to the oldest deposits.

It might thus be supposed that in the downward progress of dementia the musical faculty would be the last to go. This in some cases seems to hold good. I have heard of one patient sinking into dementia, who not only retained her musical ability, but could even pick up new tunes. There are patients in asylums who, when seated before a piano, can play their old melodies, although they have lost almost all their other accomplishments. I knew of one girl, aged about fourteen, once clever at school, who had learned music. She became demented through brain fever, and had ceased to speak save a few words which she used in different tones. She was still fond of music; she would go to the piano and play the half of a tune and then stop. She did not play it

* Many of these have been collected to form an interesting paper, "Das musikalische Gedächtniss und seine Leistungen bei Katalepsie, im Traum und in der Hypnose," von Richard Wallaschek in the "Vierteljahrsschrift für Musikwissenschaft," 1892, 2 Vierteljahr. A curious case has been related by Dr. Abercrombie ("Inquiries Concerning the Intellectual Powers," eleventh edition, p. 318) of a poor girl employed on a farm. She had been accustomed to sleep in a room separated by a thin partition from one often used by a wandering fiddler. He often spent a part of the night in performing pieces. Several years after the girl was servant in the house of a lady, Dr. Abercrombie's informant. Mysterious music was heard in the house during the night, which was traced to the sleeping-room of the girl, who was found fast asleep but uttering from her lips a sound resembling the sweetest tone of a small violin. After this fashion she performed elaborate pieces of music. This went on, with other curious acts of somnambulism, for several years. In her waking condition she was dull of intellect and showed no kind of turn for music. It is believed that she afterwards became insane.

badly, but broke off suddenly. Anyone who has spent a little time in an asylum must have noticed the irregular playing and singing of the insane, generally snatches of songs or of airs, sometimes loud and sometimes soft, or shifting from one chord to another, showing that the musical faculty shares in the profound disorder of the whole mind. In preparing this paper I have had the advantage of reading some valuable notes lent to me by Dr. Richard Legge, assistant physician to the Derby County Asylum, some of which are given in the same number of this Journal.

Apparently Dr. Legge differs from me as to the relative decay of the musical faculty in dementia. This makes me doubtful of the correctness of my opinion, which is, however, shared by others.* It is to be hoped that Dr. Legge will continue his observations, for which he is very well qualified, from his great knowledge of music and his field for observation. In the meantime I venture to present the following

CONCLUSIONS.

That the area of the brain through which musical feeling and activity are realized is not confined to the convolutions of the left hemisphere implicated in motor and sensory aphasia. It seems to me that the musical faculty must be exercised on both sides of the encephalon. Whether its activity depend upon a circumscribed portion of the brain seems doubtful. It would be desirable to have observations to solve the question whether diseases of the right hemisphere may cause loss of the power of singing, or following, or reproducing melodies. I am inclined to think that this power could only be extinguished by lesions to both sides of the brain at once. It also seems to me that the musical faculty may still survive after extensive brain diseases, which have more deeply impaired the more complex mental faculties.

* Dr. Batty Tuke, jun., observed that in insanity the musical faculty was often the last to go. He mentioned two lady patients who, though incoherent in speech, played with great accuracy on the piano. One of them played by the ear; the other from musical notes, although she was quite unable to read a book, and had not dressed herself for twenty years. (Report of Meeting of the Medico-Psychological Society in the Journal for July, 1891, p. 492).

Music and the Musical Faculty in Insanity. By RICHARD LEGGE, M.D., Assistant Medical Officer, Derby County Asylum.

The subject of Music and the Musical Faculty in connection with insanity is one which has several interesting aspects, and one which, in some directions, offers for observation a field which has hitherto been little worked. I propose to bring together in this paper some of the facts which have fallen under my notice, and to offer a few comments upon them.

The term musical faculty includes: (1) Capacity for recognizing sounds of definite pitch, and the relationship of such sounds one to another, *i.e.*, "having an ear for music;" (2) Susceptibility of the emotions to musical influence, (including a natural or cultivated taste for music); (3) Skill in the execution of music, vocal or instrumental; (4) Power of composing original music.

The first of these is strictly analogous to the colour-sense. Colour-sense is deficient in a considerable proportion of healthy persons, but, probably, it is never entirely absent. Ear for music, also, is in many but slightly developed, though it seems to be always present to at least such a degree as will enable its possessor to discriminate between sounds of very high and of very low pitch. Above this there is every degree of capacity. A person with "no ear" can, probably, tell which one of two notes played to him is of the higher pitch, but he will have little or no idea of their interval; some, whose musical capacity is more developed, and who can whistle or sing melodies without going far out of tune, cannot tell the progression of a tone from that of a semitone, or that of a major third from that of a minor third, when played to them on a keyed instrument; while others can clearly distinguish a great tone from a small tone (C to D, and D to E, in the untempered scale). It is not easy to determine accurately the amount of ear for music which a person may possess, and with the insane the difficulty is increased; in the case of idiots, often, all that we can do is to form a rough judgment, by listening to their singing and noting if it be in tune. In judging a person's ear for music the point to be observed is his power of appreciating intervals (or "relative pitch"), and this is practically the same thing as his power of telling when and how far a

melody which is played to him goes out of tune. The capacity for telling the "absolute pitch" of notes, that is, for recognizing approximately the number of vibrations per second of a single note, is one which is of little importance; few persons possess it to a high degree, and it is useless to musicians. Appreciation of relative pitch is improved by cultivation. When there is an ear for music there is also usually a sense of rhythm, but the latter is often well marked in persons in whom the former is rudimentary. It is worth noting that the colour-sense is more often deficient in musicians than in any other class of men (Edridge Green). A capacity for one form of art seems to limit its possessor in other directions; poets are commonly deficient in musical ear. A sense of rhythm is not confined to musicians; rhythm has its analogue in poetry as Metre, in the graphic arts and in architecture as Repetition of similar parts.


The three other, and higher, divisions of the musical faculty require no explanation.


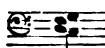
In *Acute Mania* there is generally incoherence of musical, as of other, thought. If the patient sings he generally sings snatches of songs, and these are often inaccurate and out of time and tune. Music heard by him has little effect; at most it arrests his attention for a moment, or turns the current of his thoughts into a different channel.


Patients suffering from *Sub-acute Mania* often give vent to their feelings by singing, or by playing upon an instrument; they are not fastidious about time or tune, and their performances are usually fragmentary. Two of these patients sang hymns loudly while I fed them with the œsophageal tube—one in emulation of the martyrs who sang at the stake, the other as an expression of defiance. Another patient, in whom a series of epileptic fits is ushered in by a period of maniacal excitement, shows her feelings by singing a verse of a hymn over and over again. She varies her expression to suit every emotion, and sings it coaxingly, joyously, angrily, or furiously, as the feeling of the moment may prompt, and entirely without regard to the proper sentiment of the words or tune. Another patient, also epileptic, and a fair pianist, becomes very irritable when a series of fits is approaching. For a few days before the attack he is constantly at the piano playing choruses from Handel's oratorios. He makes many mistakes, plays too quickly, and gets angry if interrupted. When he has

finished playing he hides the book under the sofa. After the attack is over he is very confused, forgets where he put the book (though he always puts it in the same place), suspects other patients of having stolen it, and strikes them. He gradually becomes clearer in his mind, but does not play much until the next attack is approaching.

The following is a good example of alteration in the musical faculty in sub-acute mania. Patient was a school teacher, and a fair performer upon the piano; he was the church organist of his village. He had many exalted delusions; thought that the asylum was Windsor Castle, and that he was Julius Cæsar, Shakespeare, Mozart, and many others. If allowed, he would spend five or six hours a day at the piano. On each occasion his performance was much the same; I took notes of one of them. First, he sat at the piano for ten minutes as if in deep thought; then, opening

the instrument, he played the notes  for about a

quarter of an hour, now in common time, now in triplets or other rhythms, sometimes forte, sometimes piano, sometimes with a careful crescendo or diminuendo. Meanwhile he listened attentively with his head to one side, as if judging some very fine and delicate effect. Next he varied the performance by using the chord  or  or

both. Thirdly, constantly playing the notes 

with the left hand, he played melodies with the right, beginning with country-dance tunes played correctly in the key of C, and ending with extempore melodies of the most incoherent kind and in any key. When he had gone through a vigorous performance of this sort for a quarter of an hour, he passed without a break into the hymn "How sweet the name of Jesus sounds," of which he played the first line over and over again, correctly and with the proper harmony, slowly and without a pause, for twenty minutes. Finally, he passed, again without a break, into "Hill's March," of which he played the first section with much spirit for about twenty minutes more.

Chronic Mania.—Most of the patients who play in asylum bands belong to this class. Some are good executants, perhaps as good as when they were sane; but their performance of good music is hardly ever worth serious consideration.

Their playing is without expression, they play loudly or softly, quickly or slowly, not as the music requires, but as their feelings at the moment may prompt. They are uncertain, apt to break down, or to stop suddenly. Some of them, especially those with engrossing delusions, learn new music with difficulty. Chronic maniacs who have a little knowledge of any art will often make this a hobby. In most asylums we see patients who spend their time drawing pictures without perspective, or writing poetry without metre. I think they less frequently take to music, probably for the reason that to play upon an instrument involves some physical exertion or a bodily position which must be kept up by an effort. A patient lately under observation spent all his time writing out the tunes of hymns from memory; he wrote them (in default of better) upon brown paper which he had ruled; they were usually correct. He bound the paper into books and sang the hymns at intervals. Excitable patients occasionally become excited on hearing lively music; but, upon the whole, I think that susceptibility to musical influence is less marked among chronic maniacs than among the sane.

Patients with *Melancholia*, where the depression is at all severe, seldom play, and are seldom pleased on hearing music. Florence Nightingale remarks that sick people generally like music in which the sounds are sustained (as those of the harmonium), and dislike that of an opposite character (as of a piano, played staccato), without much regard to its being good or bad, cheerful or solemn. I think from my own observation that this is true, and that it may apply to cases of slight depression, provided, of course, that the patient is not indifferent to music; but in cases of severe depression music of a sad character deepens the patient's gloom, while lively music often irritates him as out of keeping with his feelings. There is but small hope of music taking an important place as a curative agent in melancholia. Music of a high class appeals strongly to, and is a serious influence in, the lives of some persons; but such persons are few, and high-class music cannot be appreciated without an effort, an effort which the melancholic cannot give. The relation of music to melancholia is very much that of the other arts. A patient is no more likely to be benefited by high-class music than he is by the poems of Milton, the cartoons of Raphael, the Laocoon, or the higher mathematics; while the influence of popular music does not differ in kind from that of the

other arts, as represented by "Punch," "Tit-Bits," oleographs, and decorative wall-papers. These and other cheerful influences are, no doubt, very valuable in hastening the recovery of patients already improving, and in brightening the lives of the permanent residents in our asylums; but we can no more expect to cure a well-marked case of melancholia with them than we can hope to make a man forget the recent loss of a friend by taking him to see a farce at a theatre.

In *Melancholia Attonita*, the æsthetic faculties seem to be in abeyance. A patient who is uninfluenced by physical discomforts which would be intolerable to a sane person, cannot be expected to be susceptible to influences of an artistic character. Among the patients I have seen with this disease, a more than due proportion have had, when well, musical or artistic tastes.

In *General Paralysis* patients who previously have been musical often have exaggerated ideas of their musical powers. In two cases, where I was able to ascertain the patient's musical capacities before he became subject to the disease, there was subsequent loss of ear for music. The patient continued fond of music, but had lost the power of singing in tune, or of telling when an instrument or voice was out of tune even to the extent of half a tone or more, and he did not notice gross mistakes in his own playing or in that of others. One of these patients had formerly written a clear, neat hand; this was changed to a large, shaky, scrawl, but he did not notice the difference. As the appreciation of music consists in recognizing the relation of many tones one to another, each tone having a definite number of vibrations per second, it is not surprising that it should be affected in general paralysis, where there is a want of the sense of proportion and comparison, a confusion of mental standards, and, perhaps, a disturbance of the muscular sense. In one general paralytic I have seen an analogous change in the colour-sense. The patient regarded as yellow all the colours to the left of the blue in the spectrum; those to the right of it he called blue, or purple. This condition came on with the disease, and increased with it; in the later stages he thought that every colour was tinged with yellow.

In *Dementia*, the æsthetic feelings decay with the general mental powers, and perhaps more quickly. After the capacity for appreciating music has been lost, the power of performing upon an instrument remains. The following case is

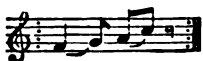
typical of the class :—A lady, highly educated and a good pianist, is very demented ; she does not recognize her attendant, and cannot look after herself in any way ; she takes no notice of music played in her hearing, and does not of her own accord go to the piano. If placed at the instrument and music put before her she plays at once, reading difficult music at sight ; she generally plays far too quickly, and, if in a bad temper, her playing is quite a scramble. She plays fairly correctly, but makes more mistakes than she formerly did. If a piano duet be placed before her, she plays first the page to the left (bass part) ; and then, without pausing, the page to the right (treble part).

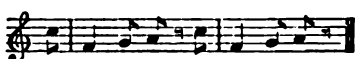
In the *Partial Manias*, the musical faculty may be unimpaired. In one case, where there were hallucinations of the sense of smell, the patient was an excellent performer upon the violin, and played with the most perfect taste. In another case a perfectly sane musical faculty coexisted with hallucinations of hearing ; the patient heard imaginary voices, but never, so far as I could ascertain, musical sounds.

The relation of the musical faculty to *Idiocy* is one of the most interesting branches of the present subject ; it is one, unfortunately, for which I have little material at my disposal. I have examined, altogether, fifty idiots of various degrees of idiocy, a number too small to enable us to form safe generalizations. Out of these, thirty appeared to be pleased when they heard music, twenty were quite indifferent to it, fifteen used to hum or whistle or sing tunes without words, nine sung tunes with words. Five of the fifteen could also articulate words correctly, but without any idea of their meaning. One had never been heard to speak, and was supposed to be deaf and dumb, until she was heard singing a tune picked up from another patient ; she took little notice of unmusical noises, even when loud, but usually showed pleasure on hearing musical sounds ; she was almost devoid of intelligence, could not walk, and did not recognize her nurse. Four of the fifty were fond of drawing, three did woolwork in fantastic patterns, and less than half of the fifty appeared to be pleased by looking at pictures or bright colours.

In idiocy we find that a rudimentary æsthetic sense frequently exists in cases where other common mental attributes are nearly, or quite, absent ; where there may be no intellect or reasoning power, where the appetites may be represented only by a dull desire for food, and where the patient's capacity for pain and pleasure is much below the

normal standard; and in idiots we may often notice an amount of musical capacity which seems out of proportion to the general mental development. I think this is rendered less surprising by the consideration that the æsthetic sense appears early in the infant, in whom we may see a well-marked taste for lively tunes and bright colours at a time when most of the faculties are but slightly developed. It also makes an early appearance in the evolutionary scale. The colour-sense exists in the crustacea; a well-developed colour-sense and love of ornament is found amongst birds; insects probably have a sense of musical pitch, and birds have musical ear to a remarkable degree, several species being able to imitate melodies accurately. I have observed a wild thrush, whose song was the following melody, sung as

well in tune as most singers would make it : 

and  It is remarkable, how-

ever, that no mammal below man, with the exception of the Singing monkey, appears to have any delicate perception of pitch (Romanes).

Granting the existence of an æsthetic sense in the idiot, I think it is more likely to find expression in the direction of music than in that of any other of the fine arts. To give the æsthetic sense expression by means of Form in the graphic or plastic arts, or of Colour, requires a long training in the use of tools; but to give it expression by means of music requires only a healthy larynx and a model to imitate. Poetry requires the use of language, a very difficult tool, and a very late product of development.

In the matter of ear, idiots do not seem to be inferior to musically-uncultivated sane persons. Of their sensibility to music I think the same is true. In performing upon musical instruments imbeciles occasionally attain a fair proficiency; and, provided that the imbecility be slight and not accompanied by arrest of bodily development, there is no reason why an imbecile should not acquire the mere mechanical and imitative part of musical performance; but as the higher expressions of the æsthetic sense involve not only emotions of great complexity, but much pure intellect, so, in the power of employing music as a means of appealing to the higher feelings, the capacity of the imbecile diminishes *pari passu* with his mental power, and never reaches the

sane standard. In composition, the highest form of the musical faculty, idiots are as sterile as they are in any of the other fine arts.

In the Acquired Insanities, the higher forms of the musical faculty—those forms which use music as a means of expressing intellectual ideas or the more complex emotions—generally suffer, as we might, *à priori*, have expected; the musical performances of the patient often reflecting the incoherent, distorted, depressed, or defective state of his mind. Susceptibility to musical influence and love of music are variously affected in the different insanities. Capacity for performing upon an instrument does not usually suffer much in itself, though it is, of course, affected indirectly by the patient's mental state; even in advanced dementia patients may retain the power of reading at sight and of playing from memory. Musical "Ear," so far as my experience goes, is affected in general paralysis alone.

The case of the organist, mentioned above, looks like an instance of reversion to a primitive type. Among savages the first stage of musical culture beyond "mere gliding of the voice up and down without notes strictly defined to one another" is "the achievement of a single musical figure, which is reiterated over and over again." A phrase, consisting of a short fragment of a scale, will be sung repeatedly for hours by the Australian aborigines. "The next step is the contrast of the two melodic figures" (Hubert Parry). It will be noticed that the thrush, whose song I gave above, was entering the second of these stages, and that much of the organist's performance was not beyond them.

The aspects of this subject which I think most likely to reward the investigator are:—The occurrence of the musical faculty in idiocy, its decay in dementia, and its loss or alteration in paralytic and organic dementia; though others, also, are of much interest to an observer who can view the matter from an artistic standpoint, and who has the insane of the cultivated classes as material for study.

The Future Supply and Status of the Nursing Staff in Asylums.

By W. F. MENZIES, M.D., M.R.C.P., Senior Assistant Medical Officer, Rainhill Asylum.

Probably most medical officers of asylums have experienced during the last few years an increasing difficulty in obtaining reliable nurses.

Given that some change in the conditions of labour is necessary, it appears that three ways are available:—(1) Enlarging the field of attraction of candidates, by making it worth while for individuals of a class where the struggle for existence is keener to enter; (2) Ceasing to engage persons of a class willing to enter domestic service, who are already in great request, and for whom the demand exceeds the supply; and (3) Making it worth while for better class girls to stay for at least three years' training.

There is little room for discussing what social class is more desirable for asylum nursing. Even limited experience of ladies in the wards is sufficient to prove that they can, *ceteris paribus*, overcome all the difficulties attached to the work, and are on the whole kinder, more conscientious, and more susceptible of training. The difference they have made to the nursing of general hospitals is now a matter of history. The real difficulty in employing them is that the reforms will cost a great deal of money, but if they are necessary we must examine the lines upon which these reforms are to proceed.

Demands.

(1) The minimum age of probationers commencing training must be raised.

(2) Shorter duty hours and longer daily and annual leave are necessary.

(3) The dietary needs improvement.

(4) A home, separate from the wards, must in every case be provided, and recreations and outdoor games encouraged.

(5) More complete instruction in hospital nursing and the management of insane persons is required.

(1) *The minimum age at which probationers are received must be raised.*

The large general hospitals have recognized the evils of allowing immature girls to commence training. Among those who demand a minimum of 25 years are St. George's,

London, Middlesex, and Westminster Hospitals, and the Manchester, Liverpool, Newcastle, Edinburgh, and Glasgow Royal Infirmaries. St. Thomas requires probationers to be 26. Very few important hospitals, except children's, receive earlier than 23, although Poor Law Infirmaries seem to favour 21. The wear and tear of ward work reacts with greater force on immature girls, and it is the younger nurses in asylums who are most often laid up with trifling ailments. If physical maturity is requisite for hospitals, how much more for asylums; and, besides this, the mental development which years and experience alone bring is necessary in the latter but not the former. There may be some arguments in favour of 23 as a suitable age, but nothing short of necessity can justify us in handing over fractious delusional or fussy senile cases to the tender mercies of girls of 19 to 21. The youth and frivolity of the nurses, and their want of tact and judgment, are a not infrequent cause of complaint on the part of patients when quarrels arise. Again, girls who stay at home till 25 or 26 usually know more about housework, and if so, the training so obtained is not wasted in the wards.

(2) *The hours of duty must be curtailed.*

At present the working day commonly begins at six a.m., and ends at eight p.m., with $1\frac{1}{2}$ hours for meals, and evening duty till 10 about once a week. This gives $89\frac{1}{2}$ hours per week, a daily average of 12.8, with only 12 hours per week for recreation, always after dark. Whole days off vary from one to four per month, an average being 24 in the year; holidays 14 days per year. The arguments against this continuous mental strain are known to all, and need not be repeated here.

It is plain that if we are to shorten the average day, we must either decrease the number of hours per day on duty, or increase the number of whole days out. The latter method has had full trial in certain asylums, even to one day off in seven, and the results have not, as I understand, answered to expectations. It is also the unanimous opinion of asylum matrons and of hospital nurses who come to our infirmary wards that they can keep "pegging at it" if they have some time off *each* day, and are kept free from the nerve exhaustion which shows itself in morning fatigue, want of appetite, irritability, forgetfulness, migraine, anæmia, and a constant desire for "a change." But in shortening the

working day we open the door for irresponsibility in the case of accidents, from the frequency of change of nurses. I believe that it will be necessary to face this difficulty, and that it will ultimately be overcome by experience and systematic training. If I were to suggest an amended daily time-table (which would apply to the male side as well as female) the day would begin at 6.30 instead of six, and end at 11 instead of 10. It would probably be found, if nurses rose at 6.30 or 7, that the ward work could be got through as early in the forenoon as now, when there are more nurses of longer service, and less time wasted in beginning. There can be no advantage in lengthening the time spent out of bed by acute, feeble, or melancholic patients, who take no interest in their surroundings unless they are in the fresh air, while tractable convalescents and sensible chronics require little supervision, and might be allowed to rise even as early as 5.30, if they desired it, and handed over to the ward maids by the night nurses, so that day-rooms and galleries would be clean before the rest of the patients were dressed. The extra hour or half-hour in the morning would allow an extension of evening leave till 10.30 or 11, facilitating asylum entertainments, and allowing the staff to visit concerts and theatres, a desirable privilege in the case of ladies, who would have little society in the building, and be presumably able to take care of themselves outside.

The proposed time-table will run thus:—

Rise 6.30; each nurse to have a biscuit and milk or cocoa before entering the wards.

Commence duty 7.

Prayers 7.30.

Patients' breakfast, 7.45.

First nurses' breakfast, 8.15 to 8.55.

Second ditto, 8.55 to 9.35.

9.35-12.30—Ward duties, medical visit, walking parties, airing court, sewing, changing laundry, weighing, stock-taking, fire practice, bathing in excitable wards, nursing instruction, etc.

Patients' dinner, 12.30-1 (or patients' dinner between the two nurses' tables).

First nurses' dinner, 1-1.45.

Second ditto, 1.45-2.30.

2.30-5.30—Walking and work parties, sewing, bathing in quiet wards, instruction classes.

Patients' tea, 5.30-6.

6-8—Patients put to bed. But in summer quiet patients remain outside till dusk. In winter entertainments will keep certain of the nurses on duty till 10.

8 or 9, according to circumstances, nurses off duty till 11. About quarter of the staff would be on after 8.

Now as to daily time off. The day staff may be divided into three equal portions. One-third would, let us say, on Monday and Thursday not commence duty till the second nurses' breakfast, 8.55; on Tuesday and Friday they would have three hours off in the afternoon, 2.30 to 5.30. On Wednesday and Saturday they would go off duty after the patients' tea at 6. The other two portions of the staff would rotate in like manner, so that the full staff would be on duty from 9.35 till after all the dinners were over at 2.30. At other times two-thirds of the staff would be in the wards. Thus most of the duties requiring a large reserve of nurses, such as instruction classes, would naturally be held in the forenoon. This arrangement, which appears at first sight somewhat complicated, gives the widest possible variation in the times off duty, so that the greatest number of individual tastes can be consulted. The total working hours would be $72\frac{1}{2}$ per week, an average of 10.3, as compared with 12.8 at present, a net gain of $2\frac{1}{2}$ hours daily. Few will say that even the light labours of airing court and ward supervision should be extended much beyond $10\frac{1}{2}$ per day, considering the amount of mental strain involved, and equally few will consider that they should be reduced beyond this. It will be noticed that forty minutes is allowed for breakfast. This is supposed to include time for dressing, which at present is done in county time. So with supper. This meal would be served in the nurses' own time at eight o'clock, and afternoon tea would be allowed in the wards. Three-quarters of an hour is allowed for dinner, to which extension no objection can be raised. A common fault in the time-tables of general hospitals is that the nurses' meals are hurried. With the above liberal allowance of time off, attendants might with justice be asked to attend occasional lectures, patients' amusements, rehearsals, and choir practices in their own time, which under the present rules it is unreasonable to expect. Annual leave might with advantage be increased to 21 days in the year, for it is certain that nurses have more anxiety and responsibility than assistant medical officers, who at present have one month. It will probably

be advisable to retain the principle of a whole day off duty occasionally, say once a fortnight.

A difficulty arises about giving charge attendants and nurses some distinct advantage in the matter of duty hours, for it is evident that they should be on duty when the patients get up and go to bed, at any rate most days. A month's annual leave instead of three weeks, and time off on Sundays, which day has been left open in the proposed scheme, would emphasize the difference of status, and recompense them for the extra responsibility.

What increase of staff will be necessary to carry out these proposals? We have to add about one-third to the present staff for day duty. The present staff at Rainhill is 1 to 9·1, or, on day duty only, 1 to 10·1. This means 99 nurses per 1,000 patients, which would have to be raised to 132 per 1,000. Then if the nurses are ladies, ward maids should be employed, not because ladies would refuse any menial work, but because it would be false economy to employ them to clean wards, single rooms and passages, when the work could be as well done by untrained maids; for the physical exhaustion following upon two or three hours of hard morning labours must inevitably distract the attention and sympathies of the nurse from her more skilled duties, the care, treatment, and supervision of her patients. These ward maids would be under the direct control of the charge nurse, and would have no charge of any patients except those engaged in household work with them. They would rise at 5.30, and receive the working patients who desired to get up early from the night nurses. They would finish the ward work by 9.30, and thereafter clean offices, passages, and attend to the nurses' home; at dinner time carry the dinners, wash up and collect the dishes, knives, etc., and at nurses' meals act as waitresses. They would be off duty a portion of each afternoon, and a certain number would be on duty in the evening for carrying teas, making down patients' beds, tidying day-rooms, etc. They would be in by 9 or 9.30. They would have relative status with housemaids and kitchenmaids.

It may be estimated that, in an average asylum, ward maids should comprise about one-fifth of the ward staff, which would thus stand at 107 nurses and 25 ward maids per 1,000 patients, for day duty.

To secure continuous supervision of every patient at night without requiring any nurses to sleep in the wards, the pre-

sent night staff would need to be rather more than doubled. say 22 instead of 10 per 1,000 patients.

In order to allow 21 instead of 14 days' annual leave, and one month for charge nurses, about four more per 1,000 patients are required, so that the complete staff would be 133 nurses and 25 ward maids per 1,000 patients, an increase of 47 per 1,000 on the present; this would give a proportion of one nurse to 6·3 patients.

(3) *The food must be improved.*

One may take it that the quality of the food stuffs supplied at present is satisfactory, and the quantity ample, but the diet-sheet lacks variety, and dishes are often spoiled by poor cooking, and are not nicely set upon the table. To remedy these faults is certainly a large order, implying better cooks, better apparatus, and a free supply of condiments. The dietary should attain a public school standard, or probably, allowing for the proverbial difference of appetite, aim a little higher. There is too great a tendency in English institutions to supply a large quantity of plain roast or boiled meat, with a small variety of vegetables, soups, and puddings, thereby losing all sense of a proper proportion of nitrogenous and carbonaceous elements. Meat is the most expensive article of daily use, and its proteids are often greatly injured in asylums by imperfectly manipulated gas ovens. This is hardly the place to set forth full diet tables; useful hints may be obtained from a paper on the subject read before the Hospitals Association in 1890. It may be taken as a rule that two or three varieties of each class of food stuff should be presented; thus, for breakfast, two kinds of fish or eggs, two kinds of meat, toast as well as bread, and tea, coffee, cocoa, and milk; for dinner always two courses, sometimes three, two kinds of meat, two vegetables besides potatoes, two kinds of pudding; and a like variety for supper. I am convinced that in a French institution from such excellent material as is supplied to English asylums a very much better result could be obtained at two-thirds of the money, and that the extra expenses of a larger kitchen staff would, in a few years, be more than repaid.

(4) *A separate block must be provided for both nurses and attendants.*

This is now an axiom with superintendents, and in most large asylums such blocks are either in existence or in contemplation. Therefore few remarks thereupon are required.

It is a common and disappointing experience that after a few months the nurses' common room is used regularly by a small clique, while the rest continue to sit in one another's bedrooms. I fear this is a necessary evil which it is little use fighting against, and one can only try to modify it by providing several day-rooms, so that small quarrels and jealousies may not cut out one section or another. The charge nurses should have a small common room, and there should be a large dining-room, which can be used for concerts and dancing, a sewing-room, a music-room, and a writing-room, making five day-rooms in all; also a sick-room and box-room. By means of folding-doors one of the smaller rooms on a higher level will serve as a stage for the large dining-room. There should be 30 to 35 single bedrooms for senior nurses, and I am unable to see any objection to the cubicle system for juniors. It is cheap and healthy, and more privacy is obtained than in two or three-bedded rooms. It is in use in ten London hospitals, including Guy's, Middlesex, and St. Bartholomew's. Room should be furnished in the home for at least 100 nurses in a large asylum, so that none are compelled to sleep in the wards, but that each may when off duty entirely dissociate herself from insane environment. This postulates that the staff take turns of sleeping in the wards, or else that the night staff be largely increased, to guard against accidents. The latter plan will inevitably be adopted sooner or later, and the sooner the better. There should be two night nurses for about every 100 patients. Those in quiet wards need not necessarily sit in the patients' dormitories, and they will be able to give help at any time in the acute wards, by means of open telephones with microphone transmitters and receivers communicating with the night superintendent's office.

As to the cost of such a block, cubed up at 6d. per foot, an ample limit, a plain substantial building for 100 could be built for £9,000, or £90 per bed, exclusive of furnishing.

It is necessary to pay far more attention to the outdoor games and recreations of the staff. There is too much tendency to discourage cricket and football because the patients do not join sufficiently. Why should they? It is the attendants who need the exercise as much as the patients. There should be, if possible, two acres near each block for games, laid out in good turf—for the men, cricket and football; for the nurses, tennis and hockey should be encouraged;

as well as cycling for both sexes. Under an amended timetable ample opportunity, even during the short winter afternoons, would be afforded. There are many people who can live all their life without exercise, but there are others who require constant and daily physical exertion to keep them in good form.

One of the most important spheres of duty of assistant matrons should be to look after and encourage the social life of the nurses; and readings, concerts, sewing classes, and small dances could be held almost nightly in the home. In the male block the assistant medical officers should preside at various symposia.

In the men's block fewer single bedrooms would be necessary, as so many charge attendants are married and live outside.

(5) *A complete course of training must be provided.*

This matter need not detain us long, as it has been before this Association since 1890, and has now assumed a practical shape. Nothing can be more gratifying than the improvement in nursing, which those who have held classes for the Medico-Psychological Certificate are bound to notice. The ward work has become easier, accidents are fewer, orders are more intelligently carried out, worry is diminished. One is, indeed, encouraged to persevere by the success which has attended the efforts of those superintendents who have led the van. It is to be hoped that when a better educated class of nurse arises the solubility of the facts taught her will increase. At present so many ordinary English words are unfamiliar to attendants that one's teaching vocabulary is seriously curtailed. A further development of asylum nursing is to be sought in affiliation—for teaching purposes—to general hospitals, so that probationers can, in their second year, go there for some months to obtain that wider grasp of medical and surgical nursing which no asylum can supply. In their third year they would prove very valuable to the asylum, and could thereafter receive the certificate. Private nursing of mental cases is a lucrative calling, and if sound hospital training went with mental experience the original outlay would be soon repaid.

The above are the principal lines upon which advance towards the elevation of the nursing profession in asylums seems desirable; where is the money to come from? It is not denied that the additional expense will be great, but it

is denied that it is prohibitive. We shall endeavour to estimate the cost:—

First, the additions to the staff. The average salary at present may be taken as £22, and in this little change will be possible, for although, if the service ever become popular, £30 will cover the whole three years' salary for probationers, owing to no salary being given at first, yet a larger number will stay longer, and obtain higher wages. Considering, then, £22 as an average wage, the addition of 47 to the staff will represent £1,034 extra per annum per 1,000 patients in wages. Then the cost of the board of each will be greater. It is not an easy matter to estimate the cost of the lodgings and provisions of the staff in a large institution, owing to disparity in the numbers provided for, and estimates vary much. The large hospitals estimate that each nurse costs from £45 to £55 a year, without salary. The present estimate at Rainhill Asylum is 9s. a week for attendants and 8s. for nurses for food, and 3s. for rooms. Probably under an improved system 10s. 6d. on an average would cover the board, and this is the estimate of, for instance, the Marylebone Workhouse Infirmary, one of the hospitals where Nightingale Nurses are trained. So, allowing the same for lodgings, the proposed cost of each nurse would be 13s. 6d. weekly, or £33 17s. a year, as against 11s. 6d. weekly, or £29 18s. a year, at present. The value of attendants' uniform before making is £3 a year, nurses' £2 10s., say, an average of £2 15s. Add £22 for salary, and we get a proposed total outlay upon each member of the nursing staff of £58 12s. per annum, against £54 13s. at present. With the present staff at 111 per 1,000 patients, the gross outlay is £6,066 3s. per 1,000.

With the increased staff it would be:—

25 ward maids cost as now	£1,366 15s.
136 nurses, at £58 12s. ...	7,996 8s.

Total	... £9,363 3s. per 1,000 patients.
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The excess over present outlay is £3,297 per 1,000 patients per annum, a difference to the weekly maintenance rate of 1s. 3-21d. This, then, is what would have to be paid for all the improvements which present experience can suggest. 1s. 3d. is a large addition to any maintenance rate, and a proposal to incur the additional outlay suddenly would find no favour with careful men. But we must remember that in England the insane in county and borough asylums cost only 9s. 2d. on an average, a cheaper rate than most other

countries, and there is a large leap before we spend 16s. 11d. per week, which is averaged by the United States. I take it that the aim of superintendents and committees should be to train the public to spend, year by year, and within certain limits, more and more upon their insane; and with judicious education the 15d. difference in the maintenance rate would, like a slowly growing cerebral tumour, be comfortably tolerated. We do not require to consider the cost of attendants' blocks, for they are built out of the Building and Repairs Fund. Only let superintendents who are unwilling to bring forward a large scheme all at once at any rate build upon an extensible plan, so that fresh attendants' blocks will not, after a few years, be a desideratum, when ideas have been enlarged, and more accommodation has become necessary.

To sum up, there is no doubt that until things are made more comfortable the status of the nursing staff cannot be raised. Duty hours and dietary are subjects which admit of gradual and almost imperceptible improvements, so that when the training school is ready, and life conditions have been made favourable, the final step of securing a better class of girl will be easy. In many directions a hopeful start has been, and is being, made; but combined is better than individual effort. I hope the matter will not be lost sight of altogether, although deprecating as strongly as anyone precipitate or premature action.

*Ages and Death-rates of Lunatics in the District where
"Accumulation" of Lunatics is most Advanced.* By T.
ALGERNON CHAPMAN, M.D. (*With Diagrams.*)

The statistics herewith presented as to an item or two of lunacy in Herefordshire have various interesting aspects. Perhaps the one that makes them of most value as elucidating an important side of lunacy statistics generally, and as bearing on the question of an increasing prevalence of lunacy, arises from their being those of the district that possesses the largest percentage of insane persons in England, and probably, therefore, in the world, and from their showing that the persons forming this larger percentage differ in some material respects from the lunacy of the country at large. In other words, the additional persons making the number larger are not more of the same sort, but are of a different class.

As showing the larger proportions of Herefordshire

lunacy it may be mentioned that the number of persons of unsound mind returned to the Registrar-General in the census returns of 1891 amounted to 336 in every 100,000 of the population of England. This number includes, of course, all such persons whether under any official cognizance or not, and no doubt includes many persons whom their relatives would not acknowledge to be insane under any less searching and confidential conditions. It, therefore, exceeds materially the number known to the Commissioners in Lunacy, which amounted to 302 per 100,000 on January 1st, 1893. Of these 302, 272 were pauper lunatics, and of these again 196 were maintained in asylums, and so it happens to simplify further comparisons with Herefordshire that the 196 is 72.1 per cent. of the 272, whilst the proportion of Herefordshire pauper lunatics in asylums was very nearly the same, viz., 71.3 per cent. of the total pauper lunatics of the county. In Herefordshire there were on January 1st, 1893, 460 pauper lunatics per 100,000 of population, to compare with 272 for England, and 328 per 100,000 in asylums, to compare with 196. This figure 328 is larger than for any other English county, and may be compared at the other extremity of the scale with 128 in Durham, 134 in Derbyshire, and 141 in Glamorganshire.

The Hereford patients appear to be much older than those in county asylums generally, and they present a much lower mortality. Both these aspects have become, year by year, more pronounced. It is also the case that in England generally lunatics in asylums are each year of a greater average age and that the mortality, especially if age is taken into account, is diminishing. It strongly illustrates the change thus going on, though it rather amuses one used to the exaggerated condition obtaining in Herefordshire, to find (in asylum reports) superintendents of asylums in counties with small proportions of lunatics, whose patients are of the younger ages and whose mortality is fairly high, deploring the change by which they are being inundated with aged and imbecile patients, and others of a somewhat hopeless but not acute type, and also that their permanent inmates are rapidly increasing in numbers. It is no doubt true that these asylums, having the furthest way to go in this movement, are making the earlier steps more rapidly and more evidently than those further on the way.

Herefordshire seems to have got furthest in this direction, though the indications are plain that it has still some way to go before the change is completed.

Why Herefordshire should be so advanced in this matter is in some points obscure, but there are some probable reasons evident enough. Herefordshire has possessed a lunatic asylum longer than many counties. Thirty years ago I knew several patients who could recollect Dr. Gilliland's Asylum at Hereford; I believe its history went back to the beginning of the century. The process of accumulation, therefore, began early. The most efficient cause, however, no doubt is to be found in Hereford being a county with a stationary or diminishing population, not that there is no natural increase of population, but that the whole increase migrates, not only leaving behind those most prone to insanity, but leaving them without the younger and more able members of their families, whose assistance might enable them to maintain their mental (and other) health, who in its failure might care for them at home, and who would themselves afford cases of younger age, and greater mortality (as well as curability).

I entertain no doubt that the condition now obtaining in Herefordshire or one somewhat beyond it is that to which other counties are tending, and that even those now furthest from it would reach it after a certain interval, if their population ceased to be increased by immigration; that this progress should be held to indicate any increased liability to insanity can only be taken as the expression of unfamiliarity with these broad facts.

To turn, however, to the Herefordshire illustration of the fact that the somewhat advanced accumulation of patients existing in that county, whilst no doubt containing the same elements as the less advanced, contains a further and different element, that gives the total quite a different aspect.

In the last two Reports of the Commission in Lunacy there is a table (Table XV. of 46th, XIV. of 47th Report) showing, amongst other things, the ages of patients in county and borough asylums on December 31st, the number of deaths during the preceding year, and their ratios per 1,000 for each age.

As regards the mean age of patients resident in all county asylums on December 31st, 1891, it would appear to be M., 44·4; F., 46·9; both, 45·7. The mean age of patients in the Hereford Asylum has not been so low as this since 1876, when it was 46·7, probably not since the opening of the asylum. At present they are just five years older than the average of asylums, viz., M., 49·1; F., 52·5; both, 50·7.

Since 1882, the mean age has increased with trifling fluctuations as below :—

Dec. 31st.—	Year.	Mean Age.	Dec. 31st.—	Year.	Mean Age.
	1882	47·6		1888	49·8
"	1883	48·8	"	1889	50·5
"	1884	49·0	"	1890	50·1
"	1885	49·6	"	1891	50·2
"	1886	49·9	"	1892	50·3
"	1887	50·1	"	1893	50·7

On comparing the ages of asylum patients, as given in the Commissioners' Report, with those in the Hereford Asylum, according to the classification there adopted, it became convenient to reduce each of them to percentages, first, however, in order to get a large enough number, taking the Hereford patients not for one year, but for each year since 1882, viz., 11 years, that happening to be the period for which I have the Hereford ages tabulated in the same way. It is to be observed that this gives the Hereford ages, not of to-day, but of, say, the middle of the period, *i.e.*, of five years ago.

When placed side by side, as under, it is obvious at a glance that Hereford is defective in the younger ages, whilst it has an excess of the higher ones.

TABLE A.—Comparison of the ages of patients in all English county and borough asylums, at December 31st, 1891, with those in Hereford Asylum, during the eleven years 1882-1893, the figures being the number per cent. at each age :—

Ages.	MALES.		FEMALES.	
	All Asylums, 1891.	Hereford, 1882-93.	All Asylums, 1891.	Hereford, 1882-93.
Under 20	3·50	1·4	2·18	·73
20 to 24	5·40	4·1	4·37	2·78
25 „ 34	20·15	17·0	17·00	12·7
35 „ 44	24·77	22·7	23·25	19·5
45 „ 54	22·00	22·4	23·0	23·09
55 „ 64	14·5	18·4	17·1	19·6
65 „ 74	7·69	10·0	9·8	14·0
75 „ 84	1·7	3·5	2·56	6·4
85	·12	·14	·27	1·03

To make the facts more obvious to the eye, and so require less detailed comparison than by study of the figures, I have arranged them in diagrammatic form as Diagram I.

In this diagram the males and females are distinguished by the continuous line representing males, and the females by a dotted line.

The lines have similar contours, and all are very close together at or just before the position of 50 years of age. At earlier ages it will be seen that the Hereford lines are much the lowest, showing how much fewer patients we have at younger ages, especially from 25 to 45, the lines for Hereford being nearly parallel to those for all asylums, but far below them.

Again, after 50 the very reverse obtains; from 55 to 85 the lines are nearly parallel, but not so exactly as before, the Hereford lines here being highest, the excess of males culminating at 55-65, that of females being greatest from 65 to 75, and nearly as much on to 85.

In Diagram II. the figures are handled in a somewhat different manner.

It is assumed that the percentage of each age resident according to the collected figures for all asylums is a normal quantity, and is taken as a standard, viz., 100 per cent. Then the percentage at each age in Hereford Asylum (1882-1893) is calculated on this; thus the percentage of males in all asylums aged 75-84 is 1·7 of the total resident. The Hereford percentage is 3·5, hence 1·7 being taken as 100, 3·5 becomes 206.

The basis of Diagram II. is, therefore, a table as below :—

TABLE B. shows percentages which the proportion resident at each age in the Hereford Asylum (1882-1893) bears to the similar proportion in all asylums, 1891 (Commissioners' Report).

Ages.	PERCENTAGES.	
	Males.	Females.
Under 20	40	36
20—24	76	63
25—34	84	75
35—44	91	84
45—54	101	104
55—64	127	115
65—74	130	143
75—84	206	250
85	116	381

This brings out very decidedly the paucity of patients at the younger ages and the excess at the elder. It makes evident also what is not obvious in Diagram I. without some study, that the proportionate defect on the one hand and excess on the other is greater as the extreme ages in either direction are reached. The exception in the males over 85 is due to the smallness of the figures here, viz., only 3, and is balanced by the undue excess in the preceding decade.

A curious feature in Diagram I., but without, so far as I can see, any meaning that I can attach to it, is that the ages of the male patients in the Hereford Asylum correspond very nearly to the ages of females in other asylums, or are even rather higher. It gives, however, an appreciable measure of the greater ages of these patients to those who are familiar with the fact of the greater age and longevity of female patients in asylums. The male patients take the position that females do generally, whilst the female patients are of proportionately greater age and longevity still.

TABLE C.—Patients resident and total deaths during 12 years, 1882-1893, in the Hereford County and City Asylum, arranged according to ages and the ratio per 1,000 of deaths to average number resident, with corresponding ratios for all Asylums for 1890 and 1891, taken from Commissioners' Reports, and for all England from Report of Registrar-General.

MALES.						FEMALES.					
Ages.	Patients Resident.	Deaths.	Ratio per Mille.	Corresponding Ratio, C. in L. 1890-91.	Reg. Genrl.	Patients Resident.	Deaths.	Ratio per Mille.	Commissioners' figures.	Reg. Genrl.	
5-9	30	4	133·0	{ 56·	4·7	19	1	52·6	{ 63	4·7	
10-14				{ 76·	2·9				{ 71	2·9	
15-19				{ 80·	4·3				{ 59	4·3	
20-24				{ 83·	5·7				{ 63	5·2	
25-34	368	13	35·3	87·	7·9	306	7	23·0	61	7·1	
35-44	488	19	38·9	117·	13·6	469	10	27·7	62	11·1	
45-54	463	37	76·5	115·	22·4	556	13	28·7	66	17·2	
55-64	397	33	81·8	142·	41·1	473	16	33·8	91	33·4	
65-74	215	40	186·0	227·	81·2	336	27	80·3	161	70·6	
75-84	77	12	155·8	452·	168·0	154	28	168·8	290	148·3	
85 and upwards	3	3	1000·0	698·	327·1	25	14	560·0	467	300·6	
Totals ...	2150	163	75·8	127·0	21·5	2405	122	50·6	83·8	19·0	

If All Asylum Ages

69·5

If Hereford Ages

137·

31·89

39·0

101·4

36·23

The Commissioners' table gives us also the deaths at each age, and the calculated death-rates. I have worked out the same figures for Hereford for the available period (1882-1893, 11 years), and present them in the annexed Table C. I have added the death-rates for each age in all English county and borough asylums, taking the mean of the two years given by the Commissioners' table, omitting decimals as not being significant, and have also added the similar death-rates for all England as given by the Registrar-General and quoted by the Commissioners in Lunacy. It will be seen that except at the extreme ages of men and the oldest of women, less than 60 patients altogether, and therefore liable to the chances of variation in small numbers, the mortality at Hereford for males is very little more than half that in all other asylums, whilst for females it is as much less than half.

With the aid of these figures we can easily calculate what the relative death-rates would be were the age distributions identical. These I have calculated and appended to the table.

These figures are also placed in a graphic form in Diagrams III. and IV.

Taking Diagram III. for males, we see the line representing the whole country, taking a very regular sweep, showing that it deals with large enough numbers to give a correct return. The "All Asylums" line is fairly regular, indeed nearly as much so as that of the Registrar-General, if we take the rise at 35-40 to represent the mortality in asylums due to general paralysis.

I cannot help here calling attention to this instance (which statistics of insanity so frequently illustrate) of a strong indication that general paralysis is not an insanity at all. Paradoxical as this sounds, I am inclined to think it is quite true, and I find, on referring to Dr. Mickle's comprehensive work on the disease, that certain authorities have promulgated the same idea, not at all on statistical, but on pathological grounds. It may be a cancerous or a zymotic disease, or it may have other affinities, but it is not a disease depending on the neurotic diathesis, as most other insanities are. And so if you make any statistics of insanity general paralysis will usually appear as an aberrant nodule on them. It does not fall in with other cases as regards heredity; general paralytics agree with the general population and not with lunatics in being married or single, and

here the inclusion of general paralytics makes an irregular elevation on the death-rate curve.

The Hereford line is rather zigzag, showing the numbers are too small to give the proper form of the curve, but sufficient to indicate its general position; on the whole nearer to that of the general population than to that of all asylums.

When we take the same figures for females, as shown in Diagram IV., we find the line for all asylums takes a fairly regular sweep, being unaffected by general paralysis, whilst as regards the Hereford line the vagaries of small numbers do not appear to have had any very obvious effect, and it takes a fairly regular sweep, and is extremely remarkable as being very much closer to that of the general population than to that of asylums.

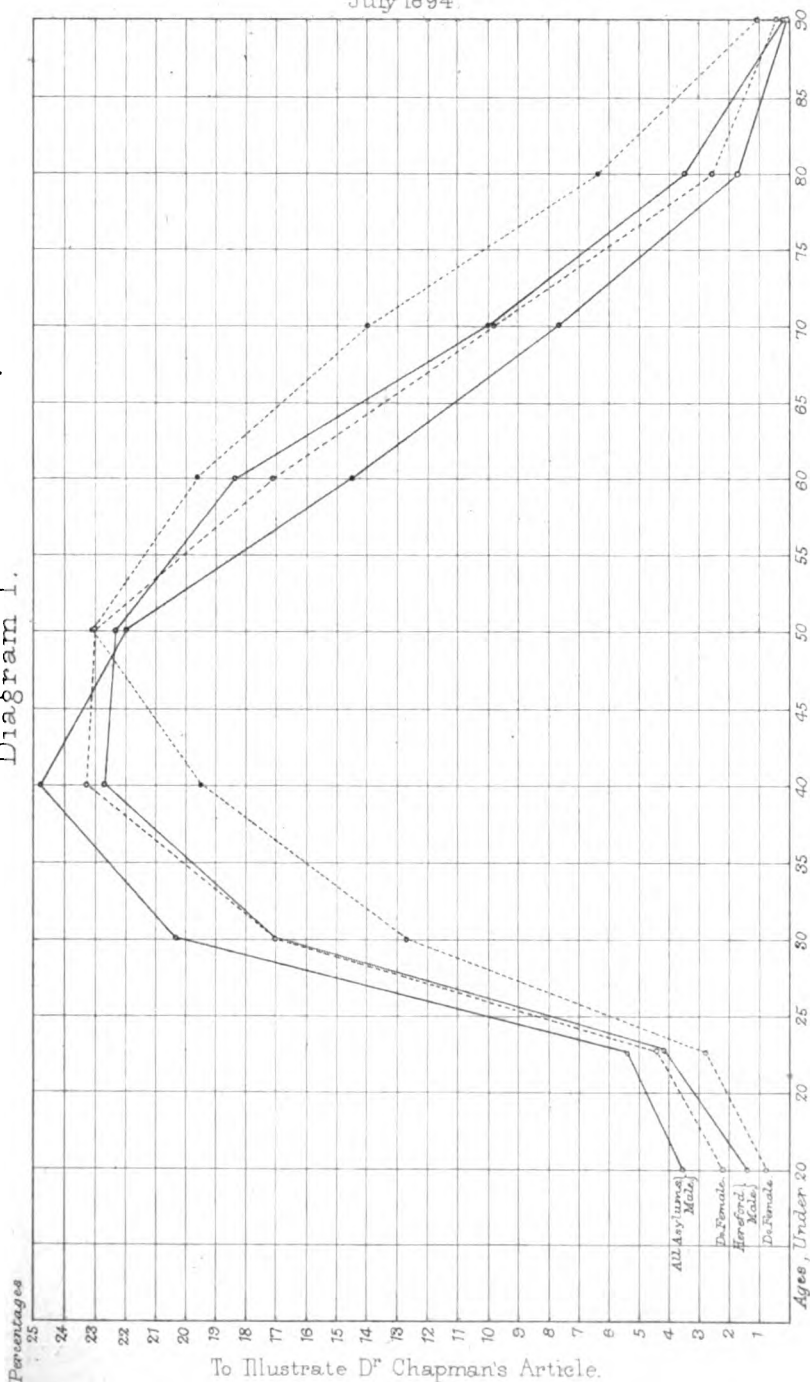
The greater age of the Hereford patients, together with our usually low mortality, would lead one to anticipate some such aspect of these diagrams, but I must say that till I had drawn them out I had not expected them to be as pronounced.

TABLE D.—Comparison of death-rates per 1,000, Hereford, 1873-93 (21 years), with all asylums mean of 1890 and 1891 as per Reports of Commissioners in Lunacy.

HEREFORD, 1873-1893—21 years.			ALL ASYLUMS, Mean of 1890 and 1891.		
Ages.	Male.	Female.	Male.	Female.	Ages.
Under 20	60	22	56	63	5-9
			76	71	10-14
			80	59	15-19
			83	63	20-24
25-29	35	21	87	61	25-34
30-39	47	38	117	62	35-44
40-49	58	41	115	66	45-54
50-59	72	32	142	91	55-64
60-69	105	67	227	161	65-74
70-79	245	121	452	290	75-84
80—	293	288	698	467	85—

I have taken out also the figures since 1873, but having them classified somewhat differently, can only compare them

Diagram I.

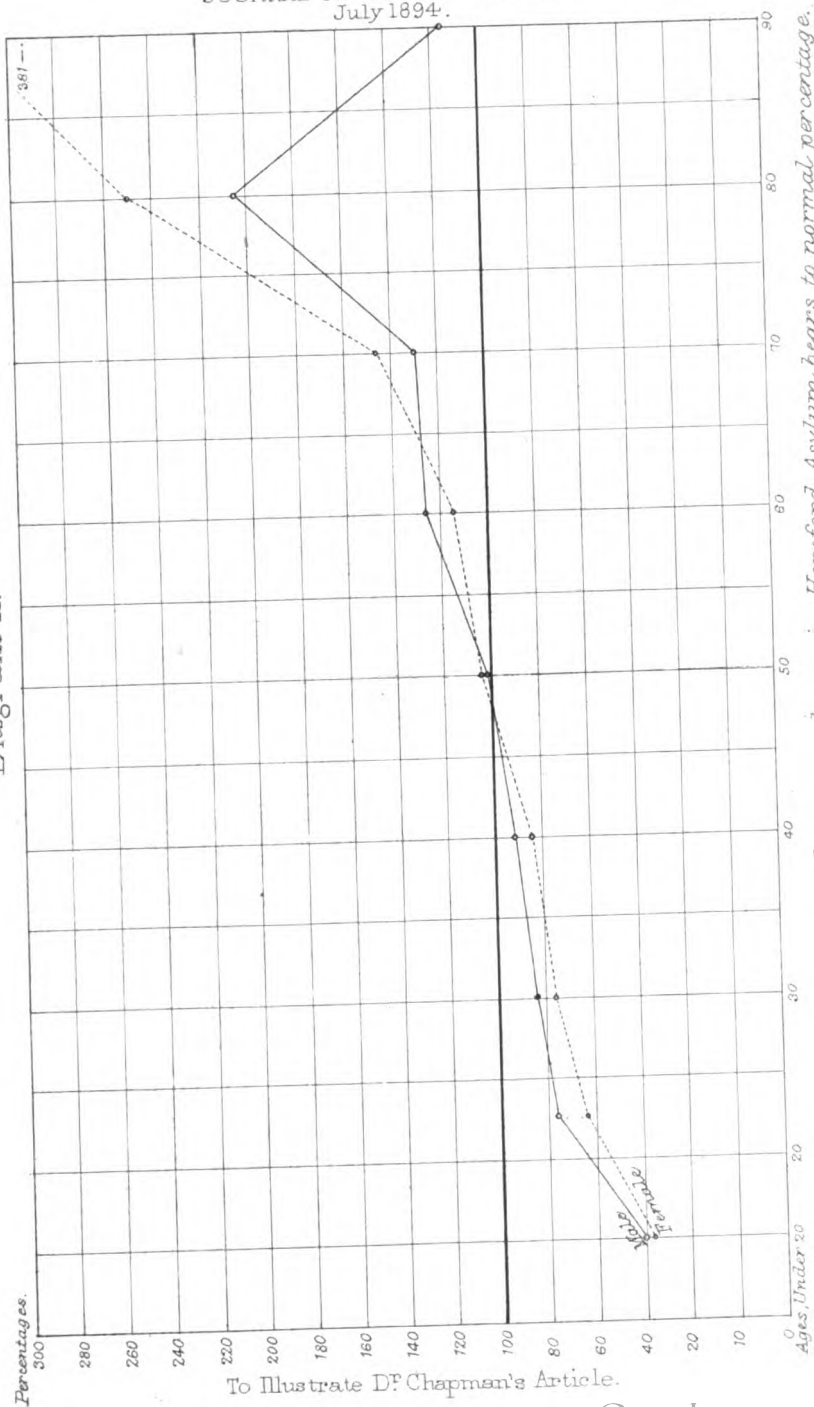


To Illustrate Dr. Chapman's Article.

Shows percentages resident at each age (of totals resident) in Hereford Asylum & in all Asylums distinguishing males and females.

West Newman St.

Diagram II.



To Illustrate Dr. Chapman's Article.

Diagram III.

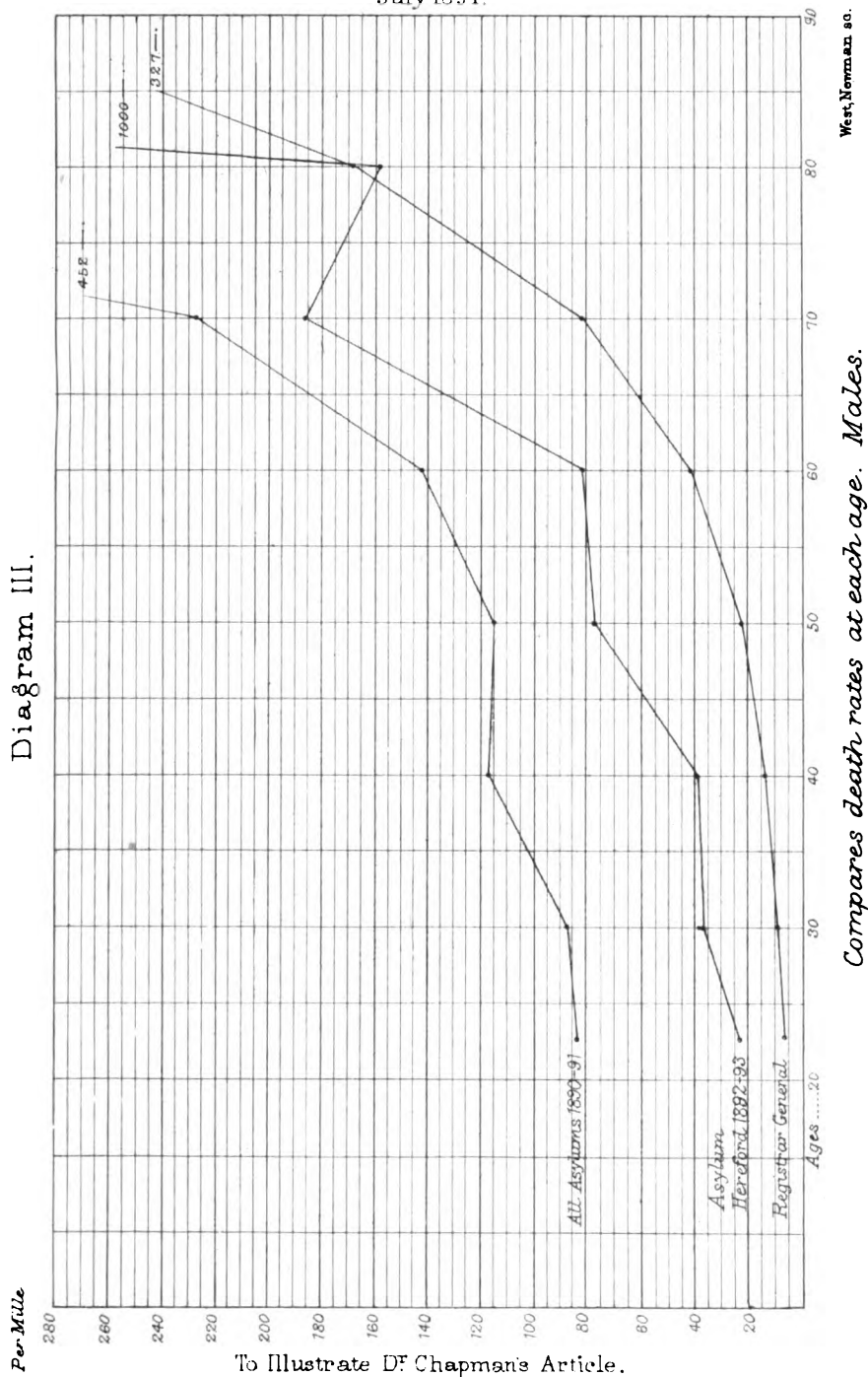
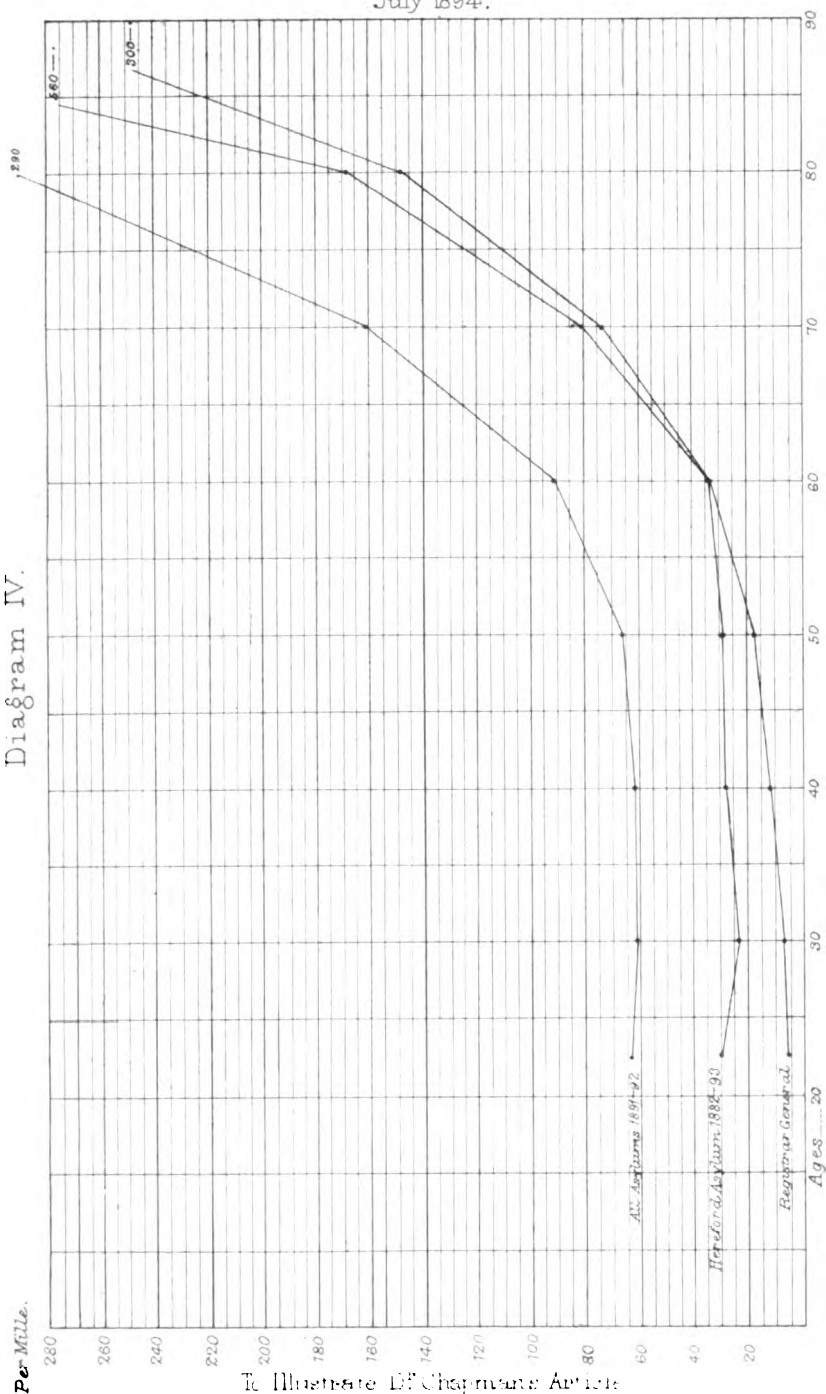


Diagram IV.



Compares death rates at each age. Females.

West Newman sc.

To Illustrate Dr. Chapman's Article

as in Table D. The general facts in this large number are much the same; but two points appear. Firstly, that the extreme ages, as in the others, have here (on the larger numbers) rates of mortality as markedly below those of all asylums as the other ages had on the smaller numbers, and also, as appears by putting them in diagrammatic form, the line of male mortality takes a smoother form. Secondly, especially in the female diagram, the figures are not quite so far from the all asylums line as in the line for 1892-93, in other words, the mortality has been lower in recent years.

There is, I think, some reason to attribute a portion of this low death-rate at all ages in the Hereford Asylum to certain conditions pertaining to the asylum that tend to longevity. This appeared a number of years ago when I collected some statistics as to the death-rates in different forms of mental disorder, when the Hereford rates were in most forms lower than those of the same forms in the other asylums whose statistics were examined. Some portion is also no doubt to be ascribed to the population of Herefordshire being a long-lived agricultural one. And there are probably other causes—indeed, the Hereford mortalities are so much nearer those of the general population than of an ordinary asylum population, that many causes, if not every possible cause, must be in action in that direction. The causes of most general interest are, however, no doubt those that depend on the long accumulation of patients in the asylum, and on sending there forms of insanity less frequently sent to asylums in other districts. One result of the accumulation is, that the residents are as five to the annual admissions, instead of the average $3\frac{1}{2}$; mortality being, as is well known, much larger during the early years of residence, even in the same form of insanity, whilst it is also the case that the longer residents tend to contain a larger proportion of imbeciles and others of low death-rates.

The greater ages also of the Hereford patients may be attributed in a considerable degree to Herefordshire longevity and to the emigration of the younger inhabitants; but that it is mainly due to accumulation is probable from its gradually increasing from 1867 till the present date, though even this may be doubted, and a large part of this effect may be attributed to more numerous aged admissions as time goes on.

*The History of an Experiment in dealing with the Reported Cases of Insanity occurring in the Barony Parish of Glasgow.** By JOHN CARSWELL, L.R.C.P.Ed., etc., Certifying Physician in Lunacy, Barony Parish, Glasgow, and Lecturer on Mental Diseases, Anderson's College, Glasgow.

The Barony parish of Glasgow has a population of about 320,000. The care of the lunatics chargeable to the parish has engaged the attention of the Board ever since its formation in 1845. Various circumstances have contributed to make the experience of the Barony parish, in relation to lunacy, exceptionally valuable. Unlike most of the other parishes in Scotland the Barony Board has always provided asylum accommodation for its lunatics; it has never been dependent upon a District Board of Lunacy for that purpose. Although at one stage of their history pressed to hand over their asylum to the then existing Glasgow District Board of Lunacy, the Barony Board declined to do so, on the ground mainly that, on account of the largeness of the population and the rateable value of the parish, the Parochial Board was better suited to be entrusted with the management of the arrangements for the care and treatment of its pauper lunatics than a District Board of Lunacy, which had a wider area to provide for, and different interests to consult; and further the Barony Board held that the double management involved in having an asylum of their own along with their statutory obligation to provide for the due certification and maintenance of the pauper insane was a distinct advantage to a Parochial Board, inasmuch as it provided the material for a more complete view of the lunacy requirements of the parish, and gave the members of the Board a greater interest in questions connected with the care and treatment of the insane. In the early years of its management the Board provided for its pauper lunatics in asylum wards connected with the poorhouse at Barnhill. That arrangement was never considered satisfactory by the General Board of Lunacy; but the Parochial Board considered the arrangement quite satisfactory, and opposed the views of the Lunacy Commissioners. Ultimately, however, the Lunacy Commissioners got their views accepted by the Parochial Board, and they determined to build a new asylum at Woodilee, Lenzie. Probably the arguments of the Com-

* Paper read at a Divisional Meeting of the Association in Scotland, held at Glasgow, March 8th, 1894.

missioners were less potent than the rapid increase of patients, caused by a great growth in the population of the parish, in bringing about the new departure. With the erection of the new asylum the Barony Board entered upon what may be called a new era in its relation to lunacy administration, for it soon became evident that it was performing the functions both of a Parochial Board and a District Board of Lunacy. That position ultimately received legislative sanction, and so the parish is now a lunacy district, and the Asylum Committee of the Board is practically, though not in name, a District Board of Lunacy.

These preliminary observations are necessary in view of the fact that the history and the present position of the Barony parish in the matter of its lunacy arrangements, are in many important respects exceptional when compared with the other parishes in Scotland. Some of the other parishes in Scotland have provided for their lunatics in parochial asylums, but these establishments have been connected with poorhouses, and have not in all cases met the requirements of the parish. The district asylums have supplied accommodation for the pauper lunatics of most of the parishes in Scotland. The Barony parish alone among the other parishes of Scotland has always endeavoured to provide fully and adequately the necessary asylum accommodation for its lunatics, and in doing so it has had to consider many problems connected with the management of the insane which did not press so urgently upon the attention of other Parochial Boards. The most important problem that has engaged the attention of bodies entrusted with the care of the insane during recent years has been to discover the causes of the remarkable increase of pauper lunatics. It was in connection with a consideration of that problem by the Barony Parochial Board that the experiment, the history and results of which I have to lay before you, was suggested as a method by which the increase in the number of patients sent to the asylum might be prevented, and some other useful results also secured.

Like other districts in Scotland and England the Barony several years ago began to feel the pinch of limited asylum accommodation. In 1888 the question of enlarging their asylum had to be considered, but before deciding to build additional asylum accommodation the Board instituted an inquiry having for its object to discover, if possible, the causes of the increase in the number of patients sent to the asylum. The records of the parish in relation to lunacy

were investigated with the view of discovering whether they would afford a clue as to how the increase had come about, and also as to whether that increase might be expected to continue. These investigations led to negative results. The only direct result of the inquiry was that judging by the number of persons sent to the asylum and the steady growth of the asylum population insanity was on the increase. But that was known before the inquiry was made. It was evident, therefore, that if reliable information was to be got concerning the causation, sources, and nature of certifiable insanity some method must be adopted that would secure a suitable scrutiny of applications on account of supposed insanity, and would also provide for recording the results obtained so as to gain some approach to solidarity in respect to the whole investigations of the attendant circumstances, previous history, causation, nature, and treatment of the cases brought under the cognizance of the inspector of poor. It was because such information did not exist in the records of the parish that the inquiry alluded to failed to throw any light upon the subject of investigation. Clearly an important aspect of lunacy administration had been overlooked, for no reliable information was available regarding the history of occurring insanity during the important stage when the case is reported to the inspector of poor and its disposal either by certification or otherwise. The method followed at that time was that on a case being reported to the inspector, the medical officer of the district in which the patient resided was asked to certify the patient, and the medical officer of the adjoining district was asked to grant the second certificate. The case was entered in the medical officer's case book along with the other cases of ordinary diseases which he attended, but no separate record was kept, and no attempt was made to gather the results of the experience of the medical officers in the various districts of the parish so as to present a complete review of the reported cases. The suggestions which I made to the Board for dealing with the reported cases of insanity occurring in the parish were based upon the assumption that it was desirable, in the interest of the parish and of the public, to secure uniformity, as far as possible, in dealing with the reported cases, and further, that the experience of a large parish in regard to those aspects of insanity which do not appear in asylum records ought to be made available for purposes of scientific investigation. In order to secure those objects, the method suggested was that a medical officer

should be appointed to examine all the cases occurring in the parish (associated, of course, for the purpose of the second medical certificate with the medical officer of the district in which each case occurred), and also to specially investigate each case in respect to all the circumstances which he considered necessary for the purpose in view, and keep a record of results. In addition, it was recommended that provision should be made for the temporary care and treatment, without certification, of cases of mental disturbance of a transient character. The General Board of Lunacy, with the concurrence of the Board of Supervision, sanctioned, or perhaps it would be more correct to say they permitted, the use of one male and one female ward in Barnhill Parochial Hospital for the treatment of doubtful and temporary non-certified cases, but it was stipulated that no patient manifesting evidence of confirmed insanity should be placed there, and that in no case should a patient be treated there for a longer period than one month.

The available figures relating to the operation of the scheme embrace the period from 15th May, 1889, till 14th May, 1893. During that period 1,337 applications were made to the inspector on behalf of cases of alleged insanity, of which 764 cases were certified insane. These figures represent an annual average of 334.25 applications, and an annual average of 191 certified insane. The proportion per cent. of the total applications certified is 57.14, leaving 42.86 per cent. uncertified. The number of cases annually certified represents an annual average of 61.4 per 100,000 of the population of the parish. Five hundred and seventy-three cases were disposed of without having been certified insane, but of that number 325 were treated in the observation wards at Barnhill Hospital; the remaining 248 cases were disposed of in a variety of ways, some being left in their homes as cases not requiring special treatment, others being taken charge of by other parishes and friends, while several were treated at their own homes.

The following tabular statement shows the figures relating to the four years under review :—

Year ended 14th May.	Population.	Total applications.	Total certified insane.	Proportion certified insane per 100,000 of population.
1890	301,931	308	187	61.9
1891	309,812	334	186	60.3
1892	314,312	345	192	61.0
1893	318,872	350	199	62.4
Annual Average	311,232	334.25	191	61.4

The figures relating to the four years preceding the adoption of the scheme now in operation, though available, are unfortunately only partially valuable for purposes of comparison, because the records relating to applications were not accurately kept. The following tabular statement shows the figures relating to the four years ending 31st December, 1888. In this table the year ends 31st December instead of 14th May as in the former table, and the number of admissions to the asylum is taken to represent the number of cases certified insane, though, of course, transfers are included in the admissions to the asylum.

Year ended 31st Dec.	Population.	Total applications.	Total admitted to asylum.	Proportion admitted to asylum per 100,000 of population.
1885	281,905	289	189	67
1886	285,299	259	172	60·3
1887	289,457	209	192	66·2
1888	293,386	230	204	69·5
Annual average	287,512	247	189·25	65·8

Although a complete or satisfactory comparison cannot be made between the two sets of figures contained in the above tabular statements, yet they present material that yields some instructive lessons. There is a striking difference between the two periods in respect to the number of applications. No doubt the difference is partly explained by the greater accuracy with which the records relating to lunacy applications are now kept. I am of opinion that the number of applications stated to have been made during the first (second table) period are certainly understated. There is reason to believe, however, that the great increase in the number of applications during the last four years compared with the preceding four years is not entirely, and probably not chiefly, to be accounted for by the greater accuracy with which the records are now kept. A large part of the increase is, I believe, due to a greater number of mental cases of a slight and temporary nature being now reported to the inspector of poor. That conclusion has been reached from several considerations. (1) First, it is to be noted that the proportion of certified insanity per 100,000 of the population is in the latter period 4·4 less than in the former period; but (2) the number of cases treated in Barnhill observation wards during the four years they have been open reaches the proportion of an annual average of 26 per 100,000 of the population; so that (3) we now treat a larger number of cases,

though fewer certified lunatics, in proportion to the population than formerly.

Two questions are suggested in this connection :—First, how is this increase in the number of applications to be explained? and what is its significance?

The figures showing the number of cases certified insane prove that the increase in the applications is not due to increased prevalence of certifiable insanity. There has been no increase of insanity. What has increased is the desire of the public to avail themselves of the services of public officials and institutions. The principle that if you increase the facilities for supplying a public want you will increase the demands made upon those facilities is one which has had ample illustration in the history of the growth of lunacy in this country. It is a curious result of efforts made to diminish and cure insanity that it should happen that the multiplication and perfection of the appliances intended to secure that end seem only partially to secure it, while they create fresh demands and new problems. But, of course, that is no reason for abandoning efforts which make for the cure of disease, even though those efforts do not result in the saving to the rates which they were intended to secure. There can be no doubt that during recent years the public mind has changed its point of view with regard to asking and accepting relief from rate-supported and charitable bodies. The burden of a weak-minded, non-wage-earning dependent, or the care and anxiety caused in a working man's household by a member of the family being afflicted with an attack of hysteria or acute alcoholism, or the restlessness of a post apoplectic condition, and many similar states are now sufficient ground for an application being made to the inspector of poor for the removal of the patient to an asylum, and the knowledge that they thereby accept parochial aid seldom causes any hesitation.

It is of practical importance to consider what is the significance of the increase in the number of applications relative to the question of dealing with the reported cases? Most of the cases reported are previously seen by medical men, at whose suggestion the applications are usually made. Medical men are quite in accord with the opinion that it is undesirable to send cases of delirium tremens and similar temporary mental disorders to asylums, and they are open to welcome arrangements whereby such cases may be treated otherwise than by certifying them as lunatics. But at the

same time medical opinion is in accord with public opinion in regarding such cases as unsuited for private home treatment, and, consequently, medical opinion as to what constitutes certifiable mental unsoundness now embraces all cases of mental disorder that require special care and treatment, however temporary the attack may be. Looked at from the point of view of the insanity of the patient it cannot be held that there is any essential difference between, say, a case of delirium tremens and a case of mania. Both patients are insane. Both forms of insanity are suitable for treatment, either in an asylum or in a hospital specially designed for the treatment of mental diseases. Now, what our figures reveal is this: that there is no increase in the number of cases of confirmed insanity, but that there is a large increase in the number of cases that can be treated by means of hospital provision of a simple, inexpensive, convenient, and temporary nature. Under these circumstances a populous parish must either provide in that way for the treatment of temporary cases, or allow such patients to go to the asylum. I am of opinion that all recent cases of mental disease should be treated in hospitals or reception houses before being sent to asylums, but meanwhile we must conform to existing conditions, and do the best we can with the appliances at our disposal. It is perhaps necessary to say that all the cases treated at Barnhill Hospital would not have gone to the asylum had we not had the observation wards to fall back upon. Some cases would have been sent to the ordinary hospital wards, because not a few were found to be suffering from delirium or stupor arising from physical diseases, such as pneumonia and meningitis. I have no doubt, also, that we now send patients to Barnhill who, but for the observation wards being available, would have been left uncertified, either because the patient did not manifest sufficient evidence of insanity to justify certification or the nature of the illness was manifestly so temporary as to preclude certification. These patients would have been left to their own or their friends' resources, or perhaps to be dealt with by the police as offenders, when in reality they were patients, though not fit to be certified insane. I am strongly of opinion, however, that our practice in sending such cases to the observation ward is usually of great benefit to the patient, and, I believe, also to the public. For it ought not to be overlooked that persons suffering from temporary mental disturbance, not amounting to confirmed insanity, are just the

persons who most frequently commit suicide and serious crimes, and the removal of such persons for a short time from their surroundings, a bath, and a sedative are usually sufficient means to set them right again.

I now desire to refer to the number of cases certified insane. It will be observed that in each of the four years during which the present system has been in operation the proportion of cases certified per 100,000 of the population remained remarkably uniform, which was not the case during the four preceding years, while if the year 1884 were included in our review it would show a rise to 81·4 per 100,000 of the population. To my mind one of the most striking features of lunacy statistics is their uniformity, and it may be taken for granted that a series of results of certification embracing several years which show a near approach to uniformity, probably more nearly represent the actual facts than figures which do not show such uniformity. I do not press that point, but I think it is something gained for accuracy in investigation in regard to the occurrence of insanity in the community when we find that our results conform in general character to what exists with respect to most, if not all, other lunacy statistics. And I must in this connection repeat that the experiment whose history and results I am now giving should have its utility judged, not merely by whether it secures an immediate saving to the rates, though, of course, that is one of its chief objects, but also whether we can by such means secure that the experience of a large population may become available in the form of reliable statistics bearing upon the social relations of insanity.

We have reduced the amount of certified insanity, in spite of the large increase in the number of applications, in an appreciable though not large degree—that is, in proportion to the population—though, of course, relatively to the applications the decrease is considerable. We have always endeavoured to diagnose the cases brought under our notice, so that no case which might be benefited by asylum care and treatment, or which required it for the safety of the patient or of the public, should be overlooked, while on the other hand cases not requiring asylum care and treatment should be dealt with otherwise. That looks a comparatively simple and matter of course procedure. But it is neither so simple nor routine as it may appear. The practical difficulties in connection with the certification of lunatics are mainly difficulties of diagnosis, and our plan for treating

simple and temporary forms of mental disorder in a special hospital ward, without certification, required great care in the selection of suitable cases for that mode of treatment. The title "observation wards" is somewhat unfortunate, because it suggests the idea that the cases are sent there undiagnosed for the purpose of further observation prior to certification. We never contemplated any such arrangement, and the wards have been used as a curative provision purely. The cases first treated there and afterwards removed to the asylum were cases whose maladies developed or became exaggerated while there, and they were comparatively few in number.* The only security against abuse of the arrangement is in a careful diagnosis of cases before they are removed to the observation wards. It would be an erroneous and unfortunate impression of our system to suppose that we have been putting the reported cases of insanity through a kind of probationary trial in the poorhouse before diagnosing the nature of their maladies. The wards were instituted to provide for a certain class of mental cases that are unsuitable for ordinary hospitals or home treatment, but which should not be certified as lunatics. The certification of lunatics should be as free from legal formalities and phraseology as possible, for this reason, that all such conditions are of the nature of restrictions upon the expression of a medical opinion concerning the nature of the disease which is certified to be insanity. The present legal form or medical certificate has the effect of obscuring the fact that a diagnosis is as necessary in the case of mental disease when it is proposed to send a patient to an asylum as it is in a case of infectious fever when the object of the certificate is to remove the patient to a fever hospital. A case of delirium tremens has as its chief symptoms restlessness, excitement, and delusive ideas, while in pneumonia fever and prostration are leading symptoms; but if those symptoms were in each case set forth in the medical certificate as "facts indicating insanity" or "facts indicating infectious fever" they would equally be worthless as indicating anything of the sort, while they would both pass muster with a sheriff were a similar course followed in admitting patients to fever hospitals as is followed in admitting patients to asylums.

* The number of cases sent in the first instance to the observation wards and afterwards certified and removed to the asylum represent an annual average of seven. These cases, however, are included in the number stated to have been certified insane, as given in the tabular statement.

Personally, I have not found the form of the medical certificates to be a serious practical difficulty, but it seems to me that it is a needlessly complicated method, and I am sure it does not secure accuracy in certifying, but the reverse.

All who have to deal with the insane are familiar with the difficulty of determining the question whether an insane person requires detention in an asylum either for his own welfare or the safety of others. That difficulty we have frequently to face in dealing with the cases reported to us; and I only refer to it now in order to bring the question under your notice for discussion in regard to two classes of cases that frequently come under our notice. The first that I allude to are cases of senile dementia, and various forms of continued delirium, associated with failure of the physical powers, either by old age or physical disease. Asylum superintendents have a strong dislike to all such cases. I confess that for a long time I retained my early asylum impressions regarding those cases; and I tried to give effect to my opinions by refusing to certify them. I have in some cases succeeded in keeping them out of the asylum by getting the friends of the patients to follow certain instructions regarding their management, but in the majority of cases it has been impossible to do otherwise than certify. Those cases cannot be treated in the ordinary hospital wards of a poorhouse; indeed, when they occur there they are an intolerable nuisance, and demand removal to the asylum.

Imbecile and idiot children form another class of cases which give rise to frequent difficulties as to their disposal. The increased facilities at the command of the public, and their greater readiness to avail themselves of those facilities at the cost of the ratepayers, have produced an increasing crop of applications for the removal to imbecile institutions of children who, except in discipline, cannot be improved in mind by residence there. It may be the case that well-directed and discriminating charity might suitably provide for the greater comfort of imbecile children, but it is open to serious question whether it is the function of a parochial board to relieve parents of the difficulties and burdens of providing for imbecile children at a cost to the rates of £30 per annum for each child. I think the duty of a parochial board is to consider and provide for such cases on the same principles as ordinary cases of insanity, placing on the poor roll only the cases that require for their own welfare or the safety of others special protection and treatment. Hitherto we have

endeavoured to proceed upon that principle, but the pressure that comes from benevolent persons interested in the cases is an influence that constantly tends to weaken our resolve, and so increase the number of cases provided for by the parochial board.

I have brought under review the results of our system in so far as they relate to the number of applications made to the inspector of poor, the disposal of the applications, the amount of certified insanity relative to the population of the parish, and some of the practical difficulties connected with the certification of pauper lunatics. I do not propose, for the present, to bring under your notice the other branches of investigation embraced in our method of dealing with the cases reported to us. The clinical aspects of the cases examined, their physical conditions as well as their mental states, the causation of insanity in the cases certified, the social circumstances of the persons reported, the nature and frequency of recurring attacks of insanity, and several other important lines of investigation are followed, each too large to be dealt with within the limits of this paper.

CLINICAL NOTES AND CASES.

*Trephining for Epilepsy: A Clinical Case.** By T. DUNCAN GREENLEES, M.B.Edin., Medical Superintendent, Grahamstown Asylum, South Africa.

The following case is of interest on account of the successful localization of a cerebral disease, as well as from the fact that this is the first recorded case, so far as I am aware, where, in a South African Asylum, the aid of surgery has been invoked to alleviate a cerebral disease giving rise to mental aberration.

Selina Mary K., unmarried, aged 39, was admitted to the Grahams-town Asylum on August 1st, 1893, suffering from epileptic mania.

Previous History.—The family history can hardly be considered as satisfactory, there being a decided hereditary tendency to the neuroses. Her mother died at the age of 58 from apoplexy, and her father, who is a farmer, while being an intelligent and well-read man, is nevertheless of a nervous and excitable temperament. The patient has always been a delicate woman, suffering from derangement of the menstrual

* Read before the South African Medical Congress, Dec. 27, 1893.

functions, but for the most part she was very active and industrious, keeping her father's house for many years.

History of Present Illness.—In the month of February, 1892, she was one day bending down to open the lower drawer of a cupboard, and, rising up suddenly, forgetting that the door of the cupboard was open, she struck her head violently against its sharp edge. Her father found her some time afterwards lying full length on the floor in an unconscious condition, or what he took to be a faint. He noticed a considerable swelling over the right side of the head, which was also much bruised. She soon recovered, and remained in her usual state of health until the following September, when she suddenly, and without any warning, had a severe epileptic fit, and ever since she has been subject to epilepsy, the fits varying in severity and frequency.

Shortly after the onset of the epileptic seizures she began to exhibit symptoms which at first were considered as simply hysterical; these mental symptoms, however, became gradually worse, and by degrees merged into hallucinations and delusions, accompanied by some excitement. She became forgetful at times, acted strangely, and was soon quite unfit for her household duties. She was observed to be always worse mentally during her menstrual epochs, and her present mental breakdown dates from the time of her last "monthly," when she began to imagine she was a corpse, would let no one touch her, and had to be fed artificially. She believed she had committed "the unpardonable sin," and that she was pregnant; and it would appear that at this time her whole moral character became quite perverted.

From time to time she had an epileptic seizure. In a fit she was strongly convulsed, the convulsive movements beginning, and being more severe, on the left than on the right side, and she complained of a local patch of anæsthesia over the left lower lip. The fit does not seem to have been of long duration, nor during these attacks does she appear to have become totally unconscious. A well-marked aura was a quivering of the tongue which generally preceded each fit.

She was under the care of Dr. Townsend, of Skytherville, to whom I am indebted for much of the preceding information regarding the onset and early symptoms of the case. Her medical attendant considered that she was a fit person for treatment in an asylum, and accordingly she was placed under my care.

Condition on Admission.—She is a slim-built woman, rather above than under the average height; hair dark and close cut; face thin and pale; and she is apparently of the lymphatic-bilious temperament. Mentally, her expression was slightly depressed. She would not look one straight in the face; she was surly and irritable in manner, and discontented at everything. Her friends said that her character had altered completely since her illness. On the right side of the head, immediately above and very slightly anterior to the temporo-frontal arch, there was a localized swelling, sensitive to the touch and sore on pressure, which she said was caused by the blow she gave her

head eighteen months ago. She is in delicate health, but physical examination failed to detect any organic disease.

Progress of Case.—August 10, 1893.—She has taken several epileptic fits since her admission. At first she was restless and stubborn, refusing food, and expressing the delusion that her food was human flesh. She says all her teeth belong to a pig, and at times she also says her food is being poisoned. She seems to have a great dislike to everyone and everything about her. Is not sleeping well.

September 1.—She has been having stout, cod-liver oil, and milk for several weeks past, with considerable benefit to her general health. She continues, however, to take severe fits, but she is not now quite so irritable and discontented as she was, although she continues to express many delusions.

September 28.—Has improved much in appearance and health, and is becoming active and industrious, and more like her old self. She continues to take severe fits, and I had an opportunity of seeing her in one the other evening. For some time previous to the onset of the fit she suffered from general malaise, was pale and depressed, and said herself that she felt a fit impending. There was no initial cry, but, while lying down, the left arm gradually became flexed and the hand clenched; then the left leg was drawn up slowly, and the muscles of the left side of the face were put into strong contraction. This was followed by convulsions, which, attacking the left side primarily and most severely, soon passed to the right side, so that the entire body was for some time in a condition of strong convulsions. Then spasms were followed by general muscular relaxation, the "post epileptic" coma supervened, and the whole attack was over in three or four minutes. After recovery for some time she remained in a dull and dazed condition, and complained of pains in her head situated on the seat of injury.

October 8.—Her father has visited her, and has expressed a desire for operation, should we consider it justifiable, and likely to result in a cure, or at least amelioration. In consultation with Dr. Greathead, of Grahamstown, it was decided that the operation of trephining should be performed immediately over the site of the old injury.

October 22.—*Description of Operation*, by Dr. Greathead.—Having concluded that an irritative lesion would probably be found in the region of the middle and upper portion of the ascending frontal convolution on the right side, and a tender spot, with slight elevation of the scalp, existing just behind the line of the coronal suture, and about one inch above the temporal ridge, this point was chosen for the application of the trephine.

Chloroform having been administered, a semi-circular flap, including the periosteum, was raised from the bone, and immediately in contact with the skull was found a small cold abscess, about the size of a split pea. A large trephine was used, and the dura mater duly

exposed. As the membrane appeared to bulge considerably into the circular opening made by the trephine, a hollow needle was passed into the substance of the brain in several directions, but without revealing pus or other fluid. The dura was then incised, and found to be much thickened and matted together with the arachnoid and pia mater. At the lower margin of the wound, the dura mater was three-sixteenths of an inch in thickness, and easily stripped from the brain surface exposed by the operation, the cortex appearing to be quite healthy.

A small portion of the dura was excised and kept for future microscopic examination, and such of the membrane as could be removed without injuring the cortex, by pressure on the sharp edge of the trephined skull, was incised.

After washing the wound with warm boracic lotion, the flap was sutured in position with horse-hair, but the bone removed by the trephine was not replaced.

The wound healed rapidly without any suppuration, though for several days the skin appeared somewhat swollen and tense.

Microscopic Examination of Dura, by Dr. R. M. Truter, of the Albany General Hospital, Grahamstown.—The portion excised was hardened in absolute alcohol, embedded in paraffin, cut and mounted, stained in picocarmine and unstained.

Under Low Power.—While it is impossible to differentiate the different layers of the brain membranes, owing to their being so closely fused together, still on close examination it is noted that the upper portion is densely fibrous. The middle portion contains a small artery in transverse section, with its lumen almost obliterated, and the lowest portion presents a few small capillary vessels indicated by parallel rows of deeply stained nuclei.

Under High Power.—The upper portion is seen to be composed of densely packed fibrous tissues, staining pink with the picocarmine, with a few small cells scattered in the meshes of the tissue. The small artery, already referred to, is in a state of *endarteritis obliterans*; its lumen is obliterated by a thickening of the sub-endothelial and endothelial coats, and in one section it is seen to be divided into two channels. The elastic lamina stands out well, and the adventitia is infiltrated with cellular elements. The lower portion of the section shows several small blood vessels in a fibro-cellular net work.

Further Progress of the Case.—The results of the operation were at first satisfactory, and for over a week she had no fits. Later on the fits returned, but seemed to be diminished in number and severity. It would appear that the operation hastened her mental recovery, for although, before the operation, she was undoubtedly convalescing, yet afterwards she rapidly became quite well.

The headache, from which she originally suffered previously to the alteration in her mental condition, returned after a time. This headache was very intense and distracting in nature, extending all over the

right side of the head, similar to deep-seated neuralgia, and on several occasions I found it necessary to administer morphine to relieve the paroxysms. These attacks of headache were mostly nocturnal in point of time, and she feared herself that, unless relief was obtained, her mind would again break down.

After the operation, and indeed ever since, she has complained of sensory symptoms affecting the left arm and hip. These consist in a sensation of numbness and "pins and needles" affecting the extensor surface of the left forearm, a total want of sensation in the left forefinger and thumb, so that she is unable to grip anything firmly with her fingers, and a local patch of anæsthesia over the left lower lip. The last symptom has existed through the whole course of her illness, but the former symptoms seem to be consequent upon the operation.

The epileptic seizures became just as frequent and severe as before the operation, and it was noted that when the headache was severe, or when a fit was impending, the skin over the trephine-opening bulged out considerably, and there was some tension and throbbing; but when, for a time, she happened to be feeling better, the scalp lay flat over the opening, and the cerebral pulsations could hardly be felt.

Having come to the conclusion that, although the operation did not seem to have resulted in the hoped-for recovery, yet it revealed the undoubted cause of the fits, viz., a thickened dura mater pressing upon the cortex, and as the thickening of the dura appeared to extend beyond the limited area exposed by the trephine, it was suggested that a further operation be performed with the view of removing more of the disused membrane. But, previous to undertaking further operative treatment, and having in view the microscopic appearance of the excised dura, more particularly the endarteritis, it was decided to try the effects of anti-syphilitic treatment.

Accordingly this treatment was commenced in December, 1893. Her head was shaved, and weak Ung. Hydrarg. Nit. rubbed into the scalp twice daily, and Pot. Iod., together with Liq. Hydrarg., was given thrice daily.

February 28.—Since the above treatment was commenced and up to this date she has had no fits or headache. Her general health is now perfect, her menstrual functions have been restored and are now normal, and mentally she is quite well again.

While the treatment has no doubt succeeded in effecting a cessation of the fits, her recovered physical health is undoubtedly due to the fact that she was sent to the seaside for a fortnight recently.

As she has kept free from fits for upwards of two months I purpose now discharging her as recovered.

Remarks.—It would appear that, as the result of our treatment, we are compelled to admit this case as one of syphilitic

thickening of the dura mater. The moral character of the patient excludes the probability of acquired syphilis during adult life, but I am informed that syphilis is very frequently communicated during childhood by native nurses.

The interesting point in this case is that the injury sustained in adult life seems to have awakened, as it were, the specific latent poison, so that the inflammatory results of the injury, occurring in a syphilitic subject, have been effectually cured by anti-syphilitic treatment; and that, therefore, all the operation has done for us in this case has been to put us on the right scent; the diagnosis having been confirmed by the microscopic examination of the dura, the treatment was simple, and has been followed by the most satisfactory results.

Unruptured Tubal Pregnancy, with Cystic Tumour of the Opposite Ovary. Operation followed by Mania and Phlegmasia Dolens. Recovery. By A. C. BUTLER-SMYTHE, F.R.C.P.Ed., F.R.C.S.Ed., Surgeon to the Grosvenor Hospital for Women and Children, and Surgeon to Out-Patients, Samaritan Free Hospital for Women and Children.

E. D., aged 31, a short, stout, dark-featured woman, attended at the out-patient department of the Grosvenor Hospital on February 22nd, 1892. She gave the following history:—Healthy girlhood. Menstruation appeared at the age of 11. The periods were regular, but she had much pain during the flow, which usually lasted for four days, and never was excessive. Married at 27. No family. Two years ago she had an attack of "inflammation in the belly," and was admitted into a London General Hospital. When there she was told she had a tumour, but nothing further being done she left that institution and went home. Had been in good health and quite regular up to Christmas, 1891, at which date her last period occurred. Soon afterwards she began to feel ill, and had attacks of sickness throughout the month of January. On the evening of February 10th she was suddenly seized with acute pain in the abdomen, and had attacks of sickness and faintness during the night. Turpentine stupes were applied, and gave some relief, and the pain passed off towards morning. Her doctor was then sent for, and he attended for three days, during which time she was kept in bed. At the patient's request, however, he discontinued his visits, but two days later, in consequence of a second attack of a similar nature, he was again called in, and remained in attendance for four days, the patient being kept in bed and under the influence of morphia. At the end of that time she got

up, and not being satisfied about her condition she came to the Grosvenor Hospital, where she was seen by my colleague, Dr. Gibbons, who strongly advised her to come into the Hospital. Two days later she was admitted under his care.

Condition on Admission.—Bimanual examination revealed the uterus pushed forward, and to the right side, the body being enlarged, and the cavity measuring $3\frac{1}{2}$ inches. Cervix soft. Os patulous. Behind the uterus, and filling up the left side of the pelvis, was an irregular swelling, baggy to the touch, somewhat tender on pressure, and reaching to the right side of the uterus, where another swelling, round, and about the size of a cricket ball, could be felt fixed in Douglas's pouch. Defæcation and micturition have both been painful and difficult of late. Urine acid, sp. gr. 1005; clear; no albumen. There has been an intermittent discharge of blood since February 17th. On March 1st a small piece of fleshy substance was passed per vaginam. Dr. J. Bland Sutton was kind enough to examine the specimen, and pronounced it to be decidua. On March 4th a larger portion was passed, after much suffering, and next day an almost complete cast of the uterine cavity was expelled. The patient was seen in consultation by Dr. Gervis, and there being no doubt as to her condition, she was transferred to my wards for operation on March 7th and on the following morning I operated.

The abdominal walls were very fat, there being quite three inches of adipose tissue above the muscles, necessitating an incision five inches in length. There was no fresh blood or blood-clot either in the abdominal or pelvic cavity. The left Fallopian tube was enlarged to the size of a German sausage, and it was intimately adherent to some coils of intestine, to the floor of the pelvis, and to the back of the uterus. Its fimbriated extremity was spread out over and adherent to a cystic tumour occupying the right side of the pelvis, which proved to be an ovarian cystoma fixed in Douglas's pouch by old adhesions. The Fallopian tube was separated with some difficulty from its surroundings, and brought unruptured to the surface, but just as the pedicle-needle had been passed, the patient coughed and strained, and the needle cut through the tube, the contents escaping into the abdominal cavity. Some smart hæmorrhage occurred at this moment, and the elastic ligature was immediately put round the uterus. I then transixed and tied the left uterine cornu and top sewed the wound with fine silk. The elastic ligature was then loosened, and there being no more bleeding, it was removed. The ovarian tumour was next removed, together with its corresponding tube. The abdominal cavity was then well flushed out with warm water, but no fœtus was observed at the time, and a second flushing out being required, the contents of the first receptacle were emptied out, thus preventing further search. A glass drainage-tube was placed in the lower end of the abdominal wound, which was then closed with silkworm gut sutures, and covered with ordinary gauze dressings. Owing to the trouble caused by

splitting of the tube and the consequent amount of time spent in repairing the damage, the operation was prolonged to just over two hours and a quarter, but the patient when removed to bed recovered rapidly from the shock, and had no sickness. Previous to the operation it was recognized that the patient would give some trouble, because of her violent temper, but we hardly expected anything like that which occurred during her sojourn in the hospital. From first to last, eight nurses in succession were exclusively occupied in watching this woman, but one by one they were tired out and retired from the case. There was no history of drink; on the contrary, the patient was said to be a sober, hard-working woman, but very excitable and quick-tempered.

On the day following the operation the patient became very restless and noisy. She rolled about in bed and screamed at the top of her voice. She seemed to be hysterical and could not be made to lie still, though for the safety of the patient thigh straps had been employed, and a nurse stationed on each side of the bed to control her movements. Twenty drops of tincture of opium were twice administered within three hours, but failed to produce even drowsiness. In the morning she developed a hard cough, but there were no chest symptoms and no pain on either side. Respirations, 36; temperature, 101°; pulse, 120. Urine plentiful, clear, and without any trace of albumen. Sp. gr. 1017.

March 10th.—She had a bad night and was very tiresome. Slept but little, and towards morning became wildly excited and resumed her screaming, and was very noisy all day. Her cough is very troublesome, and the respirations are still 36 to the minute. Pulse, 110; temperature, 100·6°. No pain in chest, but she complains of backache low down. Saline expectorant ordered and thorax poulticed. Opium discontinued because of cough. Flatus passed freely at midday. Mental condition much worse in the afternoon. She rolls about in bed and yells at the top of her voice like a madwoman, and by her movements has frequently displaced the drainage-tube and dressings. As the glass tube had become a source of danger and was useless, it was removed, and 20 grains each of bromide of potassium and chloral hydrate were given by the rectum.

March 11th.—Patient was awake most of the night and is extremely troublesome to-day. She does not wander or mutter, but simply screams and roars, and won't keep still, in spite of all her nurses can say or do. It is evident that she is not responsible for her actions and cannot be left alone for a moment. The cough is better and there is no albumen in the urine. Pulse 118 and full; temperature, 100·4°; respirations, 32. Thirty drops of tincture of opium were given with the feeding enema at night, and the patient had several short intervals of sleep.

March 12th.—Cough much better. Respirations, 22; pulse, 88; temperature, 99°. Urine normal. Patient is still tiresome, but on

the whole more reasonable and better behaved. Abdomen soft and flat, and the wound healing well. Bowels opened by enema of soap and water. Opiate at night.

March 13th.—She had a good night and slept fairly well. Looks much brighter this morning and is surprisingly quiet. Says she has stomach-ache, but the condition is all that could be desired. Pulse, 100; temperature, 100°; respirations, 20. Urine normal. Mental condition much improved.

March 14th.—She slept well during the night and is much better to-day. The cough has quite disappeared. Respirations, 18; pulse, 96; temperature, 100°. Lowest suture removed, wound looking well. Opiate at night.

March 15th.—She had rather a sleepless night, but dozed towards morning, and has been very good all day. Temperature, 100.2°; pulse, 90. Opiate given at night. Takes nourishment well by mouth.

March 16th.—She slept fairly well, but complains to-day of great pain in the lower part of her abdomen. Two more stitches were removed, and in each instance a drop of pus exuded from the stitch-hole. Pulse, 112; temperature, 100.8°. Patient seems to be exhausted, and has been lying on her back all day. She is rather sulky, but very quiet, and takes her food in fair quantities. Five grains of quinine were given by mouth and the usual opiate at night.

March 17th.—Patient had a very restless night, and did not get any sleep. She complained to-day of abdominal pain, which was, however, relieved by passing the flatus-tube. Two more sutures were removed, and again pus exuded from the stitch-holes. About noon the patient complained of severe pain in her left ankle, and said it prevented her sleeping. There is nothing in the way of swelling or redness about the ankle, but the temperature has gone up to 101.6°, and the pulse is 120 and full. Hot fomentations were applied to the ankle, and the night-draught was increased by ten minims.

March 18th.—She slept but little during the night, and to-day is very restless, and inclined to be noisy and troublesome. The pain in her ankle is gone, but she complains of backache and severe pain low down in her abdomen. Four more sutures were removed from the wound, which looks well united. In the evening she again complained of much pain in her ankle and calf of leg. The limb was raised on a pillow, and, after her opiate, she went to sleep and had a fair night. Pulse, 112; temperature, 101°.

March 19th.—In the early morning the patient began to be noisy and troublesome, and by noon had one of her maniacal outbursts in full play, rolling about in bed and screaming loudly. Morphia was then resorted to, but with little or no result, and after a fatiguing day, during which she gave her nurses no rest, she became quiet and dozed off, waking up now and again with a fresh outburst of screaming. Pulse, 120; temperature, 101°.

March 20th.—She had rather a poor night, and to-day feels bilious and cold, and has vomited quantities of green fluid. Hot water and bicarbonate of soda were freely administered with good effect. In the afternoon she became extremely troublesome, and screamed and jerked her legs about. An opiate was given, and her left leg secured to a pillow and poulticed. Temperature, 100° ; pulse, 100; urine normal.

March 21st.—She had a very bad night, and lay awake making the hospital ring with her screams, much to the horror of the other patients. The left leg is now swollen and hard, and she says the pain is acute behind the knee and in the thigh; but as yet the upper part of the limb is soft. The bowels were opened by enema, and much hard faecal matter was evacuated. Tongue coated; temperature, 100° ; pulse, 120; no albumen in urine.

March 22nd.—Patient slept off and on throughout the night, but is still restless this morning, and complains of acute pain in her left thigh, the lower part of the limb being much easier. A slight amount of pus exudes from the stitch-holes. Temperature, 99.6° ; pulse, 102; urine normal. The whole of the left limb is now swollen and hard.

March 23rd.—The patient is better to-day, and much quieter. She takes her nourishment well and sleeps soundly. Mentally there is a marked improvement. Temperature 99.2° . Pulse 90. Bowels regular. The limb is still hard and swollen, and extremely painful when moved.

March 24th.—Patient again inclined to be troublesome and noisy. There is less pain in the limb, which is somewhat softer. Poulticing discontinued, and the limb bandaged. Five grains of quinine given by mouth and a table-spoonful of brandy every four hours. Opiate at night.

March 25th.—She had a very good night, and to-day is free from pain. Temperature 99.2° . Pulse 98. Bowels open, and urine normal.

March 26th.—The left leg is very painful behind the knee and in the calf; the ankle also is again swollen and hard. Poultices resumed, and opiate at night.

March 27th.—Patient improving mentally and bodily. Temperature 99.6° . Pulse 96.

March 28th.—Restless again to-day, and tiresome. Complains of severe pain behind the knee and in her ankle, though the limb seems less swollen. In the evening she was seized with acute pain in her right leg, which kept her awake in spite of a night draught. Temperature 99.6° . Pulse 100. Limb raised on pillow.

March 29th.—The right leg is very painful to-day, and has begun to swell. Patient complains of backache, and is in very low spirits. Temperature 98° . Pulse 100.

March 30th.—Right leg very painful and much swollen. Bowels opened by enema. Temperature 100° . Pulse 100.

March 31st.—She had very little sleep and complains bitterly of acute pain in her right thigh and leg. Has been sick this morning. Temperature 100·4°. Pulse 110.

April 1st.—Patient's mental condition has shown marked improvement during the last week, and she now behaves like a reasonable being, though at times she inclines to her old habit of screaming without any apparent cause. The right limb is much swollen, hard, and painful when moved. Temperature 100·6°. Pulse 108.

April 4th.—Much better in every way. Right limb less swollen and not so painful. Temperature 99·6°.

April 10th.—Stronger and improving every day. Slight backache and pain in the right limb.

April 26th.—Limb bandaged and pillow removed. Mental condition much changed for the better. She is now obedient, contented, and remarkably quiet.

May 5th.—Quite convalescent. Temperature and pulse normal. Some stiffness remains in both limbs, which are still bandaged.

February, 1894.—The patient is in good health and is able to perform all her household duties.

May 27th.—Patient in perfect health, mentally and bodily.

OCCASIONAL NOTES OF THE QUARTER.

The New Rules of the Medico-Psychological Association.

After much discussion, and having passed through the searching ordeal of a Select Committee, the new Rules of the Association have been agreed to, and now await the passing of the minutes at the annual meeting to be formally adopted.

The question with regard to the admission of ladies as members of the Association has been settled, and although the proposal to admit them was carried by a large majority, there were strong opinions expressed against it. Other societies, however, having shown the way, there was no reason why ladies should be excluded, provided they were registered medical practitioners, and were prepared to carry out the objects of the Association. The admission of ordinary members seems to be duly safeguarded, although it would have been better to have made it compulsory for the names of all candidates proposed for election to have come within the purview of the General Secretary.

The chief feature of the new Rules is the creation of Divisions, and this is decidedly a step in the right direction.

There can now be no difficulty in a body of members in any part of the United Kingdom being constituted a Division, and making their wishes known to the Association by communicating with the Council direct through their Divisional Secretary. Rule XXV. states that "Upon the application of a *sufficient number** of members, the Council may constitute a new Division in any locality of the United Kingdom or the Colonies," and this, we take it, will amply meet the wishes of many of our members living in outlying districts, and it is hoped that the banding of members together in districts will be the means of encouraging scientific work. The Divisional Secretaries will be officers of the Association, and consequently *ex-officio* members of the Council.

The duties of the various officers are regulated by the rules. The President will preside at all meetings (at which he is present) of the Association, of its Divisions, and of the Council. He shall interpret the rules, and his decision shall be final. The duties of the Treasurer have greatly increased of late, and he is now empowered to engage the services of a professional accountant to assist him in the preparation of the accounts. His power of spending is limited, and he must pay all monies received for the use of the Association into a separate banking account in the name of the Association. Formerly it was the custom for the Treasurer only to read the balance-sheet at the annual meeting, and make any verbal remarks upon it, and answer any questions. In future he will have to present a report at the annual meeting, while the Auditors, after examining his accounts, must also prepare a report "showing the financial position of the Association, and the balance in the Treasurer's hands, and making such suggestions as may seem expedient." Their report "shall be printed and presented to the annual meeting of the Association, and shall be published in the next ensuing number of the Journal," so that there will be two reports upon one balance-sheet. Formerly the signature of the auditors on the balance-sheet, with any remarks they wished to make, was deemed sufficient. The duties of the General Secretary are onerous, and many members thought that his expenses of locomotion might have been awarded him, as he is bound to attend all meetings of the Council and of the Association (except, of course, Divisional meetings) wherever and whenever they may be held.

* We think the rule would have been improved by making it on the application of a definite number of members.

A new official appears in the shape of the Registrar, who "shall have the management of the business and arrangements of, and carry on all correspondence with the Certificatedes in Psychological Medicine, the Gaskell Prize, the Prize Dissertation, and the Certificates of Proficiency in Nursing and Attending on the Insane." We are glad he is empowered to employ clerical assistance for this work, which is by no means light.

There seems a probability that the Council provided for in the rules may be found too large and cumbersome, for besides the eight officers fixed there are to be divisional secretaries, and an editor or editors of the Journal, which will make it not less than twelve in number, and in addition there are to be eighteen other members of the Association, so that there will be a Council numbering some thirty members at least (of whom six only shall form a quorum) for an Association of, say, four hundred and fifty members. According to Rule IV. "the Council shall delete the name of any member of the Council who shall not have attended at least one meeting of the Council during the year," and Rule V. makes it the duty of the General Secretary to inform each member of the Association before the annual meeting the number of attendances of each member of Council at the Council meetings during the past year, so that we may take it there will be pretty full meetings of the Council in future in consequence of the above-mentioned penal clause and the publicity given to the number of attendances. With regard to the voting power given to the members of the Association in the selection of the officers and Council by Clause 7, each member, whether present at the annual meeting or not, is given the opportunity of recording his vote, and thus having a voice in the selection of members of Council, so that it is now left more in the hands of the members generally than was formerly the case. In the case of the election of the officers, he must be present at the meeting to record his vote. All ambiguity respecting meetings is now cleared up; they are defined under Rule I. as being of four kinds—"Annual, General, Divisional, and Special," and notices of all meetings other than special shall be sent, with the list of names of candidates for membership, to the Editor of the Journal in time for publication, "*if possible*." We trust it will not be the rule, but the exception, to take advantage of the "*if possible*." It cannot but be a matter of congratulation

that the regulations which are in future to govern the proceedings at meetings are now clearly laid down according to rule. The chaotic condition of things so frequently observed at meetings in the past can now be avoided by a simple application of the rules.

The convening of the annual meeting will, under Rule III., be left in the hands of the General Secretary. The date has to be fixed by the President and Council not less than two months previously, and then the Secretary at the earliest possible date shall issue the notices to each member of the Association. "The earliest possible date" is controlled by Rule II., which states that the notices shall be sent out "*not less than one month*" before the date fixed for the meeting, but if any member wishes to bring any business forward at an annual meeting, by Rule V. he must give notice in writing to the General Secretary "*six weeks beforehand*," which means that he must give notice a fortnight before he knows when the meeting has to be held! A strong feeling exists that if the annual meeting had been definitely fixed for the last week in July or the first week in August much uncertainty would have been avoided, and private arrangements could have been made long beforehand by members wishing to be present. Almost all associations of a similar character have adopted such a rule, with signal success, and any wide departure from such an arrangement cannot but affect the attendance of members; while giving the option of either week would be convenient. The business to be taken at an annual meeting is laid down by Rule VII. We notice under Section 4 "report of the Treasurer," but no mention whatever is made of "the report of the auditors," which, under Rule XIV., "shall be printed and presented to the annual meeting of the Association, and shall be published in the next ensuing number of the Journal;" and as this "report of the auditors" has, we presume, been instituted to exert a controlling influence over the Treasurer's accounts, its omission has been probably due to an oversight.

With regard to general meetings, which are to be convened by the General Secretary, we observe that he must give notice to each member *fourteen days* before the date of the meeting, but if a member desires to bring forward any business, he must give notice in writing to the General Secretary *three weeks before*, that is, a week before he has had official notice that a meeting is about to be held,

Members should especially note that they may discuss a resolution brought before a general meeting without submitting it to the President or Council, even though it has been decided by the President or Council that the vote upon it "shall only be taken at an annual or special meeting called for that purpose." The General Secretary is empowered by Rule XXI. to convene a special meeting, and send to every member a notice thereof, though he is not bound to give notice any definite time beforehand. So that members may receive notice to-day of a meeting to be held to-morrow.

It seems a pity that a code of rules numbering altogether only 110 should have been divided up into five chapters, averaging but 22 rules in each. It would probably have been simpler to have numbered the rules straight through, from Rule I. to Rule CX. For the rule referring to any subject the chapter must first be found and then the number of the rule, bearing a similar number to one in five other chapters, must be quoted. Seeing that the book of rules has no index, this becomes at times somewhat perplexing.

Taken as a whole, we consider a great improvement has been effected, and that great credit is due to the Rules Committee, notably its Chairman, Mr. Whitcombe, for the labour they have bestowed.

Regina v. Sherrard. By GEO. H. SAVAGE, M.D., F.R.C.P.

It is thought best that the annotation on this subject should rather take the form of a personal communication than an editorial, and therefore I purpose setting before the readers of the Journal the chief points in the case which need special consideration.

I may say at once that very many physicians in general medical practice have written or spoken freely on the importance of the case as far as the future conduct of similar cases is concerned. Briefly, Dr. Sherrard has had for some time a medical home, more of the medical boarding house nature than anything else, and into this house he has received from several of the London consultants in lunacy patients who appeared to them to be in the borderland of insanity. In such cases Dr. Sherrard has had considerable

success. Unfortunately a lady who had been staying in his house suffering from mental depression, after having run away from his home on one occasion, and having on another slightly injured herself, either threw herself out of a window or in getting out of the window with the idea of escaping, fell, injured herself, and died. The jury called attention to the fact that this lady appeared to be a person of unsound mind, not being under the proper certificates, and action was taken by the Commissioners in Lunacy. There was one other case for which Dr. Sherrard's conduct was called in question, but in this a patient, after leaving Dr. Sherrard's, went back to the work in the office which he had performed before he went there, and only became bad enough to be sent to an asylum some months later, and the judge and jury thought there was really nothing in this case which could be fairly considered an evasion of the Act.

The details of the first case need not be gone into fully here. It must suffice to say that the lady was at the climacteric, that she had had a great deal of real domestic worry and anxiety, so that the melancholic statements which she made were at most exaggerations of the facts. She had made several hysterical attempts at self-injury, and had on more than one occasion run away from home, but had returned, not having done any injury to herself or to others. She was sent to Eastbourne with a statement that she had suffered from hysterical insanity, but it seems this information did not reach Dr. Sherrard, through an oversight on his part.

After running away and the attempt at suicide Dr. Sherrard was anxious to get rid of the patient, and took the ordinary means by communicating with the husband, but this latter put off his coming, and thus time passed and the accident happened. Doubtless Dr. Sherrard ought legally to have sent the lady to the county asylum when her natural protector did not turn up, but I fancy there are not many who in his circumstances would not have acted humanely and illegally and retained the patient till the expected arrival of the husband. So much for the case; now for the judgment and for the general feeling in regard to it. The patient was recognized as suffering from a form of insanity in which there were recurring periods of mental disorder with long periods of calm, if not mental health. The general feeling seemed to be that in a case where there was certifiable insanity existing for a few days in each month, the rest of

the month being without such symptoms, that it was right not to certify the patient.

Gynecologists gave evidence to the effect that they would not certify, or advise to be certified, such cases, and many other consulting physicians at once said that if this were enforced they should be bound to try and evade it. It was said with some truth that the function of the Commissioners was not to force everyone who is mentally aberrant into asylums, but to look after those who are there, and who are already certified.

I know the difficulty of the Commissioners, and I would not for a moment suggest that they did not perform what they considered to be a painful duty in prosecuting Dr. Sherrard, but I do think that sooner or later some provision will have to be made for cases which are distinctly on the borderline, and who at times are beyond the frontier, but who are so only for short periods.

The former action of agitating against private asylums has had the effect of spreading the care of lunacy in single homes to a most alarming extent, and I believe that a too strict reading of the Act will lead to hiding away and neglect of patients who otherwise might be well treated in doctors' homes.

The question is a difficult one, and I think the time has come when some further legislation is needed.

The Zierenberg Case.

(Further Notice.)

The acquittal of the Zierenbergs on the charge of perjury in connection with their unsuccessful action against Mr. Labouchere has naturally occasioned some surprise in non-legal circles. And yet the explanation is not so remote as might be imagined. In the first place, the issue in the perjury prosecution was much narrower than that in the libel action. In the latter, the whole conduct of the St. James's Home was impugned. In the former, the gravamen of the charge was Mrs. Zierenberg's statements, repeated impliedly by her husband, concerning their affairs in Germany and the arbitration in England in regard to the burning of their property. In the second place, a jury may in a civil case disbelieve evidence on which they

would, in a criminal case, hesitate to convict for perjury. Again, in the criminal case of *Reg. v. Zierenberg*, Mrs. Zierenberg's evidence was not available against her husband. Lastly, the general feeling was that the Zierenbergs had already been sufficiently punished by the result of the civil action. It is, in our judgment, extremely doubtful whether the prosecution ought to have been undertaken.

Sir James Stephen.

In the excellent biographical notices of the late Sir James Stephen that have appeared in the contemporary press, little, if any, prominence has been assigned to his services in the cause of medico-legal science, and yet not the least brilliant and original part of his splendid record of work was done in this direction. It was he who first suggested, in a paper which was read before the Juridical Society, and which excited at the time in legal circles almost as much commotion as the famous tract in which Dr. Newman "tested the elasticity" of the articles produced at Oxford, a liberal interpretation of the words "nature and quality" in the rules in *Macnaghten's case*, and this view he subsequently enlarged and defended in his "*History of the Criminal Law in England*." Nor did Sir James Stephen's judicial practice fall short of his theoretical opinions. He was, unless we are mistaken, the first, as he was certainly the greatest, of the English judges who have endeavoured to manipulate the rules so as to bring them into harmony with scientific knowledge and common sense. Thus, in *Reg. v. Davies* ("*Western Mail*," March 15th, 1888, and "*Dictionary of Psychological Medicine*," Article "*Criminal Responsibility*," Vol. I., at p. 315) his Lordship said to the jury: "It is said that, according to the law, a man is responsible for his acts when he knows that the act is wrong, and that is true. Now medical men frequently say that many persons who are really mad do know that the act is wrong. But if you will exercise your judgment in the matter you will probably see that, knowing the act is wrong, means nothing more or less than the power of thinking about it, the same as a sane man would think about it; the power of attaining to a full con-

ception of the horrible guilt there would be in murder, the power of knowing that you are doing that which will destroy life and your soul, and cause sorrow and terror and every kind of frightful consequence, the power of thinking about all this, that power which every sane man possesses. That is the law, as I understand it, which by guilt implies the power of discriminating between right and wrong; that is the test of responsibility." In another case (Reg. v. Burt, "Norfolk Chronicle," 10th November, 1885, and "Dictionary of Psychological Medicine," *ut sup.*), Mr. Justice Stephen charged the jury: "That if a man were in a state of passionate rage, excited by disease, which violently interfered with his actions, so that he had not a fair capacity to weigh what he was doing or to know that his act was wrong, he was not responsible." It is impossible to doubt that utterances like these, although it is wrong that legal *dicta* should have to be read in a non-natural sense,* proceeding from the greatest criminal lawyer in his generation, and one, too, who had no sympathy with the idea that crime is only an abnormal or diseased development of virtue, have done much to consolidate and accentuate the judicial departure from the rules in Macnaghten's case in recent years, and to diminish the hostility of the legal towards those members of the medical profession who insisted that such a departure was necessary.

Lord Hannen.

What Sir James Stephen did for the law of lunacy on its criminal Lord Hannen did for it on its civil side. In *Waring v. Waring*, *Lord Brougham*, and in *Smith v. Tebbits*, *Lord Penzance*, had established as an external standard the principle that the least degree of mental disease was fatal to civil capacity. In the case of *Banks v. Goodfellow*, Chief Justice Cockburn shook the supremacy of this erroneous doctrine. But in *Boughton v. Knight* and *Durham v. Durham*, Lord Hannen destroyed it; and the question of capacity became, as that of criminal responsibility is rapidly tending to become, a question of fact.

* Has not the time arrived for endeavouring to induce the Law Lords to reconsider the subject?

The Lewisham Workhouse Case.

The result of the Local Government Board inquiry in the Lewisham alleged workhouse scandal is on the whole eminently satisfactory. The Board do indeed find that indiscreet and improper observations were made in Mariano Williams's presence by the superintendent of casual wards, the male attendant, and the master of the workhouse; that there was unexplained delay in providing him with the special diet prescribed by the medical officer, and that he was detained for an undue period in the receiving ward without the supervision of a paid officer. But in regard to all the main charges against the Guardians and workhouse authorities, the report of the Local Government Board is a verdict of complete acquittal. They hold that the medical officers acted with *bond fide* and professional discretion in arriving at the conclusion that Williams was of unsound mind and had suicidal tendencies; that no complaint can be made as to the manner in which his removal to the asylum was effected; that his location in the same ward with Fox was necessitated by the want of adequate accommodation, and that Fox was not a raving maniac, but was already in a state of coma at the time of Williams's admission, although liable to convulsive seizures which might cause commotion. These findings show how much foundation there was for the indictment presented against the Lewisham Guardians, and accepted in certain quarters, whenever it was presented, with a settled determination to treat its formulation and proof as one and the same thing, and with an exuberance of invective which would scarcely have been justified if Williams had been a latter day Norris. There is nothing that the more emotional section of the British Press and public find half so attractive as a lunacy scare.

(See further under "Notes and News.")

THE ASYLUM CHAPLAIN'S COLUMN.

"Ut Co-operatores simus."

A Plea for Daily Services in Asylum Chapels. By Rev. H.
HAWKINS.

In a memoir of Dr. Conolly, of Hanwell, the following passage occurs:—"The tone of the chapel bell coming across the narrow valley of the Brent still reminds me, morning and evening, of the well-remembered and mingled congregation of the afflicted, and who are then assembling, humble yet hopeful, and not forgotten, and not spiritually deserted." These words of the famous mental physician strike the keynote of the following paper, the purpose of which is to invite attention to some of the advantages of *daily* morning and evening prayer in chapels of lunatic asylums. Such services "daily throughout the year" are beneficial in various ways. They are helpful to chaplains by their fixedness, involving the exercise of their ministrations daily at regular hours. Any restraint imposed on their movements would be amply compensated by the privileges for their congregations and themselves accruing from continuous worship. The chaplain's presence at morning and evening prayer keeps the congregation and himself in close communication, and many of those who may not *themselves* attend the daily services are yet aware that the opportunity is within reach. The benefits of such services to many of the patients of an asylum are various. The interval of *quietude* before the commencement is no doubt felt by many to be restful and soothing. The spirit of a sensitive patient which may previously have been ruffled and discomposed by noise or some irritating occurrence is often calmed and quieted in chapel. The daily morning service is a *preparation*, as elsewhere, for the day's occupations. To use the expression of a patient unfailing in attendance, evening and morning, the early worship "fortifies for the day." Another referred to the daily ministrations in chapel as "a great comfort." A letter from a discharged convalescent contained the remark, "The services at the chapel which I have had the privilege of attending have been to me, as it were, wayside seats, where I have often sat and refreshed myself." "Dear old chapel," another remarks, "I have spent many sacred hours there." Another benefit incident to attendance at daily services is *relief to the monotony* of the lives of many in

asylums, especially of the unoccupied. The walk to and from chapel and its services are a *break in the day*. This is not a *chief* advantage; still, it is not valueless. The services for morning and evening prayer appear to be specially well adapted to the circumstances of an asylum congregation. The Prayer Book has a soothing tendency very beneficial to sorrowful and disturbed spirits. Many "weary of earth and laden with their sin" have been relieved by joining in the prayers, by hearing some comfortable words of the Bible, by taking part in some well-known hymn, or by some remark from the pulpit which seemed to apply to their own cases. Again, many patients who neither have a Bible of their own nor ready access to another may yet become profitably acquainted with parts of the Holy Scriptures read at chapel services; and what tender memories, healing in their influence, may be awakened by the words and harmony of some familiar hymn, such as "Rock of Ages"—associated, may be, with earliest recollections. The regular use of daily prayers in chapel may indirectly exercise a wholesome influence on the household at large, and not merely on the accustomed congregation. The very knowledge of the regular hours of prayer may be consolatory to some who perhaps themselves cannot attend. The sound of the bell for chapel service may be a reminder of the duty of worship, and perhaps awaken a desire to go to the house of God. The writer recalls the case of a bedridden patient to whom the sound of the chapel bell was a call to his own devotions. Week-day services may afford an opportunity for the occasional invitation of preachers who might not be conveniently able to come on Sundays. Their presence is valuable, and they supply *variety* of ministrations, specially desirable for congregations who are necessarily restricted in their movements. Not to patients only, but also to members of the staff—attendants, nurses, etc.—the occasional opportunity of attending week-day services in an asylum chapel may in some cases be beneficial, fortifying and bracing the spirit for the day's work, or refreshing it after the long hours of labour. The merciful invitation, "Come ye yourselves apart and rest awhile," may be gratefully responded to by resorting, for a brief interval of rest and quietude, to some of the frequent chapel services. These should be short, on week-days not exceeding, as a rule, 20 or 25 minutes; on occasions when a special sermon is given somewhat longer time must, of course, be allowed. Ordinarily the shortened

service indicated in the Prayer Book furnishes an office of suitable brevity. It should be made bright with simple chants and hymns in which the congregation can join, and occasionally a very short devotional reading might be welcomed. Others besides members of the English Church (for in large asylums are various religious denominations) would often be comforted by opportunities for frequent worship, and be led to value the ministrations supplied. For the reasons mentioned, and others besides, week-day services in asylums are very valuable. They should be steadfastly maintained where they already exist, and introduced where they do not. *Experto crede.*

PART II.—REVIEWS.

La Reina Donna Juana la Loca, estudio historico. Por ANTONIO RODRIGUEZ VILLA. Madrid, 1892, octavo, pp. 576.

This book may be said to clear away the cloud of obscurity which has for well-nigh four centuries hung over the history of Juana, the Queen of Castile. The kingdoms of Castile and Aragon were politically united by the marriage of Ferdinand and Isabella. They had five children, Isabella, Juan, Juana, Maria, and Catalina.

Ferdinand, the Catholic, the most sagacious prince of his time, was solicitous to increase his power and territory by dynastic marriages. Isabella, the eldest daughter, became Queen of Portugal, and Juana, at the age of seventeen, was betrothed to Philip, Archduke of Austria, whose sister had been promised to Don Juan. Philip was the son of the Emperor Maximilian, by Mary of Burgundy, from whom he inherited the low countries. A fleet of about 100 sail was sent to convoy the Princess past the dangerous shores of France. She arrived at Rotterdam on the 17th September, 1496; but it was a month before the Archduke met his bride at Ostend. Philip was one of the handsomest men of his time, and was said to be amiable to those around him, but selfish, fickle, indolent in business, and fond of pleasure. Princes in those days, though they recognized only one wife, had many mistresses; practically they were polygamists.

The Infanta, on the other hand, had been very strictly brought up by her mother, Queen Isabella, amidst the grave and stately ceremonial of Castile. She had a great taste for music. Peter Martyr tells us that she was naturally simple, and cared very little for State affairs. It is easy to see on what different terms the husband and wife came together. He gave but a portion of his time and attentions to the Infanta; but she gave her whole heart to her young and handsome husband in all the fervour of her warm southern blood. Her passionate love for Philip soon became embittered with a fierce jealousy. We read that hearing some scandal about his gallantries with a Flemish lady, the Princess flew upon her rival in a fury, struck her, and ordered her beautiful fair hair to be shaved off. We need not be surprised that this was the occasion of a violent quarrel between the Archduke and his wife. In some points it appears that Juana was difficult to deal with, and unyielding like a rock. It soon became known to Ferdinand and Isabella that their daughter was very unhappy, that she was neglected by her husband, and deprived of all authority in her house, and even of her personal liberty.

The portrait given in the volume does not show Juana to be beautiful; but she was said to be handsome, robust, and healthy. She gave birth to six children, two sons and four daughters, all destined to be Emperors and Queens. Her brother, Don Juan, who seemed always to have been of a weakly constitution, died at the age of nineteen, 1497, after being married for seven months to Margaret of Austria, who gave birth to a posthumous child stillborn. By the subsequent death of her elder sister, Queen Isabella of Portugal, and her little son Don Miguel, Juana became heiress of Castile, Aragon, and Naples. By the death of her mother, Isabella, in 1504, she became by rights Queen of Castile. Her father, Ferdinand, wished to remain in the government of that kingdom; but Philip claimed the crown for his wife. They landed at Corunna, and Ferdinand was obliged to abandon Castile. In spite of the indifference, harshness, and continued infidelities of her husband, Juana's love for him knew no bounds. The warmth of her attachment is the subject of many pointed remarks in the confidential documents published by Villa. In her passions and her jealousies people began to see the tinge of insanity, which she inherited from her grandfather, Juan II., and her grandmother, Isabella of Portugal, who had been shut up

for nearly forty years in the Castle of Arevalo. Bergenroth,* who spent several years in studying the archives at Simancas, tried to prove that the story of Juana's insanity was a plot concocted by her crafty father and her selfish husband to enjoy the power which belonged to the rightful Queen of Castile.

Though Bergenroth failed to convince those best acquainted with Spanish history, some suspicions that he was right still linger in the literary world. These ought to be dispelled by the documents published by Villa. It is true the learned Spanish historian tells us at the end of his work that we ought not to confound the true insanity which completely transforms the ideas, the affections, and all the memory with the extravagancies, the frenzies, and the caprices of a deeply enamoured and jealous woman. He says that the way Philip treated his wife in Flanders, his licentious life, and his denying her the management of her house and all intercourse with her parents were more than sufficient to reduce her to an incredible condition of insensibility and depression. He remarks that on the death of her husband her extravagances increased, and her grief knew no bounds. He adds that the severity of the Marquis of Denia, the governor of Tordesillas, increased the mental disorder of the unfortunate Queen. To this line of argument it is sufficient to reply that though Villa, like most people unacquainted with the different forms of lunacy, regards it as something which transforms the whole mental fabric, we do not hold that Juana was insane in this sense. Nevertheless, we believe that no one acquainted with the symptoms of mental derangement will deny that in her passions, her melancholy, eccentricities, and delusions, Donna Juana crossed the bounds of sanity. We may even admit that the neurotic tendency was brought on and increased by her misfortunes. Had it not been for this unhappy heredity, the Princess would have endured them all without her reason giving way. Consider how differently Mary Stuart would have conducted herself under these circumstances. The Scottish queen met with as bitter misfortunes as the Castilian, but there was a neurosis in the royal family of Spain, and there was no insanity in the house of Stuart.

It is clear from the documents published by Villa that Juana gave proof of mental derangement long before the

* "Gustave Bergenroth," a memorial sketch by W. C. Cartright, M.P., Edinburgh, 1870, p. 217.

memorable interview between Ferdinand and Philip on the 20th June, 1506. Her sullen melancholy is noted as early as 1502. We have an original account of the outburst described by Prescott, when she suddenly determined to leave Cordova to join her husband in Flanders, and on her exit being barred by the resolution of the governor of the Castle, she remained the whole night in front of the gate till induced by her mother, Queen Isabella, to return to her quarters. In a letter of Peter Martyr, written in the beginning of 1505, Juana is mentioned as *non sui bene compos*. Her father acknowledged in a written document that she was incapable of acting for herself, and though he protested against the manner in which Juana was kept deprived of her liberty, this was probably because the astute King of Aragon knew that he could still have more influence over his daughter than over his son-in-law. On the other hand it was no advantage to Philip that the Queen was kept secluded. She was sometimes taken out to be shown on State ceremonials, when she appears to have acted reasonably on most occasions. In July, 1506, in the course of a journey between Valladolid and Segovia, Juana, imagining that her husband and his counsellors were going to immure her in the Castle of Cogeces, refused to enter the town, remaining all night on her mule in the open country. Next day they went to Burgos. Philip only enjoyed the Government of Castile for four months, long enough to make him unpopular. Some historians have assigned his sudden death as the cause of Juana's insanity. In spite of all his harshness and infidelities she indulged in the most extravagant grief, got his body embalmed and kept in a leaden coffin, which was driven about in a hearse by four horses on her journeys. Where she stopped a guard was stationed round the bier. No woman was allowed to approach; the poor wife's jealousy survived the death of her unfaithful husband. It was found that the Queen would transact no business; but she showed much anxiety for the arrival of her father, who at once resumed the Government of Castile.

In the beginning of 1509 she was conducted to the Castle of Tordesillas, where she remained under the charge of a governor for nearly half a century.

The Princess Catalina, who was born about sixteen weeks after the death of Philip, remained with her widowed mother till her eighteenth year, when she was married to Juan III., King of Portugal.

There is no doubt that during all these years Juana was more or less insane. She courted solitude and refused to associate with anyone. Music was the only thing that gave her pleasure. Although she could talk reasonably enough it was found impossible to get her to write or sign anything. She was irregular in her times of eating, sometimes refusing all food for two or three days. She sometimes slept on the ground, would not change her clothes, and refused to allow her attendants to keep her person clean. Her intense obstinacy is often mentioned. Her indifference to religious worship seems to have given great scandal, and her waiting women were suspected of heresy. As Juana does not seem to have ever been a woman of inquiring mind we are willing to accept Villa's anxious vindication of her orthodoxy. The Spanish historian insists that in spite of the assertions of Bergenroth and Altenmeyer the Queen was never imbued with the Lutheran heresy.

Towards the later years of her life the insanity deepened. One of her imaginations was that a large wild cat had mangled her mother, Queen Isabella, and had bitten her father, Ferdinand. That Prince died on the 22nd January, 1516. He was succeeded by his grandson, Charles I. of Spain, who afterwards became Charles V., Emperor of Germany. He appears to have only once come to see his mother.

On the rising of the Commons in 1520 Tordesillas fell into their hands. The Marquis of Denia, the Governor, fled away, and Juan de Padilla and other leaders hastened to the presence of the Queen, whom they hoped to put at the head of the insurrection. Juana received the Junta with courtesy. She assured them that she had never even heard of the death of her father, King Ferdinand. But instead of welcoming them as her deliverers she was as impracticable as ever. She would order nothing, do nothing, sign nothing. After three months' liberty the castle was recovered by the royal troops. Her old keeper, the Marquis of Denia, returned, and her dreary life recommenced. About five thousand pounds a year were allowed for her maintenance, a considerable sum in those times; but she had little to do with the spending of it. The Marchioness of Denia was watchful to restrict her liberty, and her daughters would now and then put on the Queen's dresses. The Infanta Catalina went meanly attired for her rank. She wrote to her brother, the Emperor Charles, to complain of the way

her mother was treated. On the 12th of April, 1555, Juana's unhappy life came to an end. She had attained the age of seventy-five years, forty-seven of which she had worn away in the Castle of Tordesillas.

Her learned biographer observes that it would have been better for Donna Juana had she been born more politic and less loving, more of a daughter and less of a wife, more of a Queen and less of a woman.

Villa finishes with the impressive words, "*Fué loca, si, pero loca de amor.*" "She was mad; yes, mad from love."

In addition to the authorities quoted in the text there is an appendix of 114 pages containing some hitherto unpublished documents. Altogether this is a work of great research, and an important contribution to the history of the times.

W. W. I.

Der Verbrecher in Anthropologischer Beziehung. Von Dr. A. BAER. Leipzig: G. Thieme, 1893. Pp. 456.

Dr. Baer is the chief medical officer at Plötzensee, a prison which represents the criminal world of Berlin, and from which (as Dr. Baer himself tells us) the prisoner usually emerges to become a confirmed recidivist. There should be much to say about such a criminal world as this, both in anthropological and in many other respects, and the book, therefore, arouses high expectations.

In some respects these expectations are satisfied. Dr. Baer has an extensive knowledge of the literature of his subject; he summarizes profusely the facts and opinions of others, usually with considerable judgment and accuracy. His own anthropological investigations on the criminals under his care are also of distinct value and interest, though it would have been better if they were more extensive and more fully detailed. In this large volume the original matter does not occupy more than twenty or thirty pages, and as Dr. Baer's summaries of the work of others, though clear and conscientious, do not reveal any special gift for fresh presentation, or the disentanglement of salient points, we could well have spared a considerable part of the work in exchange for a larger amount of original research.

A chief feature of the work, and in our opinion an un-

fortunate one, is the constant polemical undercurrent. Dr. Baer always treats with consideration those whose opinions he opposes, but the fact remains that the book might have been reduced to very moderate dimensions if it were not for the author's constant endeavour to pile up facts and views in support of his deeply-rooted repugnance to anything that can be called "moral insanity" or "congenital criminality." He refuses absolutely to recognize anywhere a "moral idiot," or an "instinctive criminal." His horror of that figment of the imagination almost amounts to an obsession, and may be seen on nearly every page. He defines the "moral insanity" which he opposes, as "a disease of the moral sense," and when so defined it easily lends itself to refutation; for what is the "moral sense?" where is its seat? But for those who are more concerned with things than with words, and who by "moral imbecility" or "instinctive criminality" mean, not a pathological mental entity, but a convenient clinical term to express psychical weakness revealing itself to little or no extent in disordered intellectual action but to a very marked extent in *disordered social conduct*, these disputes seem mere quibbling. The question of the physiological basis of moral sanity and the pathological basis of "moral insanity" may well be left open at present, and is usually left open by those who use the term. Facts come before theory.

Dr. Baer is among those who explain all the phenomena of criminal anthropology by social causes. He believes—though able to bring little definite evidence in support of his belief—that the physical and mental characters of the criminal classes are the same as those of the lower social classes generally. When, however, we come to definite facts, his results correspond in very many cases with those of other investigators who do not take this view. He finds a great variety of abnormalities very common among his prisoners. He has investigated the proportion of stammering among criminals, which does not appear to have been done before, and finds it 2·3 per cent., a very much larger proportion than any statistics give for the ordinary population; he finds both red hair and baldness extremely rare, and the proportion of absolutely beardless adult males as high as 10·2 per cent. He makes an interesting contribution to the literature of tattooing, and the only illustrations of the book are four plates of tattooings. He is compelled to recognize the special liability of criminals to insanity, and puts this

down to a variety of causes—degenerative characters of the criminal classes, bad heredity, traumatism, alcoholism.

While Dr. Baer's book does not seem to us entirely satisfactory, and cannot be recommended as a handbook of criminal anthropology, it will still be found useful by many readers. It may specially be recommended to thoughtful students of the criminal who wish for a reliable summary of much recent German and Italian work; and it may be very advantageously read in conjunction with Dr. Kurella's "*Naturgeschichte des Verbrechers*," as the two writers usually approach their common subject from very different points of view.

Suicide and Insanity: A Physiological and Sociological Study
By S. A. K. STRAHAN, M.D., Barrister-at-Law. London: Swan, Sonnenschein, and Co. 1893.

Dr. Strahan's prominent motive in writing this study of suicide is to emphasize the importance of heredity in its causation, in the hope that something may be done to diminish it in the future.

In the historical account of suicide as practised in early times among the Buddhists, Jews, Greeks, Romans, etc., the writer shows that there were three great incentives to the act: Religious fanaticism, fear of slavery or ill-treatment at the hands of conquerors, and the desire to escape physical suffering consequent on disease, the last-named becoming less potent with the advance of medical science and the progress or spread of Christianity. This was what the author calls rational suicide.

As regards the nature of the act itself, an innate love of life being in reality a necessary part of life, where this is absent the organism must be looked upon as mutilated and incomplete. So that the suicide is, therefore, *ipso facto* abnormal; not necessarily insane, of course, as some have held.

Among those who voluntarily seek death, we must distinguish:—(a) those who are disgusted and tired of life, or have an instinctive craving for or love of death—*true* or irrational suicides; these are in the majority nowadays; and (β) those who destroy their lives either because they consider that death is the most acceptable of impending evils, one of which must be embraced, or they wish to gain

by their self-destruction something they consider much more valuable than the life forfeited. These are rational or *quasi* suicides, making up, Dr. Strahan says, not more than 10 per cent. of the suicides of modern western civilization, but to which class belonged the major part of the suicides among the ancients. At the same time, we must recognize that it is impossible to classify some suicides and to say positively to which class they belong.

Rational suicides Dr. Strahan conveniently divides into two sub-classes:—

- (1.) Those who die for gain, including :
 - (a) Religious devotees ;
 - (b) Who die to follow friends ;
 - (c) Who die to gain notoriety ;
 - (d) Who die that others may gain (*e.g.*, the Emperor Otho).
- (2.) Those who die to escape evil, made up of :
 - (a) Who die to escape physical suffering (Stoics, Zeno) ;
 - (b) Who die to escape slavery and persecution ;
 - (c) Who die to escape punishment ;
 - (d) Who die to escape disgrace, dishonour, etc. ;
 - (e) Who die to escape poverty.

The bulk of the rational suicides of to-day is made up of those with whom the suicidal act is but the finish to a longer or shorter career of crime, or immorality, or both. They have decreased with civilization, but it is impossible to obtain any correct idea of their number, for the absurd common verdict of the present day, "suicide during temporary insanity," is a bar to accurate statistics. Again, when there is more than one influence at work, *e.g.*, poverty combined with drunkenness, poverty with shame, etc., it is very difficult to refer the suicide to its real cause.

As regards rational suicide, there is no necessary association with an abnormal mind, but the suicidal instinct of the true (irrational) suicide is a sign of a markedly degenerate condition of the human organism, brought about especially by a deliberate disregard of, and studied interference with, the laws of nature.

The characteristics of true suicide are that it does not commonly appear among savage races ; it increases among a people as deteriorating influences increase and the natural laws of health are overridden. As it is a constitutional depravity which gives rise to it, we find the offspring depraved, and we find that it is hereditary. Above all this,

we find it following the same laws as to transmissibility and transmutability as govern the other family degenerations. In the many examples of suicide, with their family histories, which the author gives us, we see these characteristics: We find repeatedly the association of suicide with epilepsy, with insanity, idiocy, crime, etc.; we notice the disappearance or extinction of the suicide's stock, and, again, the direct transmission of suicide through two or three generations. "What cannot be too loudly or too widely preached is the grossness of the outrage against Nature of which we are guilty in inducing or even permitting the markedly unfit to propagate their kind."

To form an idea of the potency of heredity upon suicide, we must consider hereditary taint on a broad basis, *i.e.*, include all constitutional abnormalities—insanity, epilepsy, cancer, suicide, idiocy, scrofula—and if we want to see the factors which help to bring about these degenerate types, we have before us the terrible devitalizing influences at work among the poor of large cities: Want of fresh air and sunlight, improper food and clothing, prolonged confinement in unhealthy shops, etc. These, often combined with drunkenness, syphilis, gluttony, suffice to cause the decay of families, and among the later representatives we find criminals, paupers, idiots, suicides, and madmen.

Dr. Strahan divides *true* suicides into three groups:—

- (1.) That in which there is mental aberration.
- (2.) That in which the act depends upon an irresistible impulse, and in which there is no mental aberration.
- (3.) That in which a certain predisposition makes it possible for a slight shock, trial, or irritation to awaken the unnatural impulse.

This classification is fairly convenient, though not free from objections.

The data at our disposal for determining the relation of insanity to suicide are, for reasons already given, quite unreliable, but we are not convinced by the arguments drawn by the author from a comparison of sexual differences in suicide to elucidate this point; nor is it free from objection to argue concerning the frame of mind of the successful suicide from a study of the mental state of those who have unsuccessfully attempted to destroy their lives. It may be convenient to take the presence of delusion or hallucination as a test of insanity, but by adopting a more rigorous test one would probably find that a larger number of suicides are

really insane than the author estimates; many will take exception to the views that the gloom of the melancholiac is no more insanity than the irritability of the old gentleman with gout in his toe, and that in many cases of melancholia with suicide there is neither moral nor intellectual disorder, and that the suicide is here on all fours with him who dies to escape physical suffering.

Of course, as Dr. Strahan points out, it is absurd to believe, what statistics at present would show, that 98 per cent. of successful suicides are insane, and only three to four per cent. of unsuccessful ones. The common verdict of the coroner's court, "suicide during temporary insanity," is farcical in the extreme.

The frequency of bad heredity in cases of suicidal impulse, although it is often difficult to obtain the evidence, is a point the author wisely emphasizes, and it is useless to classify the causes of suicide under the heading love, fear, sorrow, financial losses, etc., without going carefully and fully into the question of constitutional predisposition.

Dr. Strahan discusses the effect of race, season, climate, on suicide, and finds additional evidence in favour of the view that the bulk of modern suicide is the outcome of abnormal or pathological condition, and, therefore, *true* suicide. He next considers the close relationship between crime and suicide due to their common origin, the increase of suicide *pari passu* with the spread of education, suicide among children, and the increase of suicide among women as they approach man in their mode of life. The general increase of suicide we must attribute to hereditary transmission, and he quotes Maudsley, Griesinger, and Falret on this point.

That the present law against suicide is useless and unjust we must all agree, and the author advocates sweeping away all legislation upon the subject, so far as it relates to the individual himself, as being far more just and sensible. As regards the question, "Is suicide justifiable under any circumstances?" Dr. Strahan refutes the arguments of the theologian, the natural scientist, the sociologist, and the moralist condemning suicide, as not sound, and concludes that, although suicide may in some instances be criminal, as may any other human act, yet it is not necessarily so in all cases.

Dr. Strahan's book should be read as one of the many contributions to a most important and interesting subject.

Man and Woman: A Study of Human Secondary Sexual Characters. By HAVELOCK ELLIS. London: Walter Scott, Limited. 1894.

Mr. Ellis is to be congratulated on the difficult task which he has successfully accomplished in this book, of collecting the enormous material scattered in books and periodicals concerning the differential characteristics of man and woman, sifting it, and presenting it to his readers in an agreeable and methodical manner. He steers remarkably clear of the marked bias which has vitiated in the past the conclusions of various writers on this fascinating subject, and a great feature of the work is, therefore, the calm judicial way in which evidence is presented and the scientific spirit which pervades it.

A careful study of its pages will, we feel sure, be a good means of clearing away the thick undergrowth of prepossession and superstition which flourishes in the region considered. In establishing comparisons between man and woman, the standards adopted are the infantile and the senile type, as having a more definite or fixed significance in the evolutionary process. Beginning with the sexual differences observed in the growth and proportions of the body and its various parts, the senses, metabolism, reaction to hypnotic phenomena, to disease, insanity, etc., are all considered in turn, and well-founded deductions or conclusions made.

In comparing the characteristics in the growth and proportions of the body of man and woman we find indications of a superior evolution in woman from the greater length of the index finger, and the tendency for the little toe to possess only two joints; this feature and the more common abbreviated type of foot in them denotes rather a retrogressive than a progressive evolution. It seems that the girth of the thigh is the only measurement in which the women do absolutely exceed the men.

In Chap. IV. we find an interesting account of the pelvis and its relation to the erect posture, and the future of the pelvis is discussed. As we would expect, we find women as the natural leaders of evolution here, the large pelvis being best adapted to propagate the race, and being necessary to its higher evolution.

In spite of much that has been written and said to the

contrary, the appearance of the skull is comparatively of little importance as a characteristic of sex; at all events there is no one constant sexual character in the skull, although, generally speaking, we find in the male (α) a prominent glabella; (β) less prominence of the parietal and frontal bosses; and (γ) better marked muscular prominences. The significance of the cephalic index has also been overrated, and Mr. Ellis, after quoting various observations and opinions, cautiously remarks:—"The opinion may be hazarded that if any sexual difference is ultimately found, it will be in favour, on the whole, of the somewhat greater brachycephaly of women among the darker and more primitive races, and a possibly greater tendency to dolichocephaly among the fair and civilized European races."

Marked alveolar prognathism and a small maxillary angle are more common in women. Again, as regards cranial capacity, there seems no reason for supposing that the frontal region is higher or more characteristically human than any other cranial region, and there is just as little reason for supposing that the frontal region is more highly developed in men. We may say, on the whole, that women's skulls approach more the infantile type, and men's the senile or simian.

To those who are familiar with the history of opinion regarding cerebral sexual differences, with its prejudices, assumptions, fallacies, and overhasty generalizations, it will be refreshing to peruse the fair and analytical remarks of Mr. Ellis on the subject. In Europe, men, it is agreed, possess absolutely larger brains than women; but in relation to body weight, women's brains are at least as large as men's, and are usually larger if we take care to eliminate the chief disturbing errors which the author draws attention to, and which have marred the value of many observations. At the same time, although some men of genius have had large brains, we must remember that it is a possession of very uncertain value, and may only denote a tendency to convulsive disorder (Benedikt). While it has recently become clear that women have, so far as there is any sexual difference at all, some frontal superiority over man, it has at the same time been for the first time clearly recognized that there is no real ground for assigning any specially exalted functions to the frontal lobes. (We could well excuse a female ironical smile at the reception of this information.) On the other hand, the parietal portion of the cerebrum, physio-

logically probably the most important, predominates in men. Mr. Ellis concludes that from the present standpoint of our knowledge of the brain there is no scientific warrant for attributing any superiority of one sex over another.

From an analysis of observations on the various senses we may conclude that man does not feel pain more keenly, but has a keener smell, tastes better, sees better (although men are more subject to colour-blindness). Men have generally keener and more delicate sensory perceptions than women, but in women there is a greater irritability or affectability (not to be confused with sensibility).

Concerning the intellectual impulse our reliable data are quite recent (the researches of Prof. Jastrow, *e.g.*), so that our knowledge is yet but limited. Mr. Ellis discusses reaction-time (less in women), the tendency to ruse noticed in women, their ready wit, the results of women competing with men in certain employments, etc. We may say, speaking generally, that women exhibit a certain docility and receptiveness; they are less able than men to stand alone; there is a tendency to be vividly impressed by immediate facts, and to neglect those that are remote—an attitude of mind, in short, fatal to the philosophic thought. As Paul Lafitte says, "The woman's mind is more concrete, the man's more abstract." At the same time, training tends to abolish these differences. In religion, women have initiated but few religious sects, although they form the larger body of followers, often reckless and devoted. In politics, women probably possess in as high a degree as men the power of dealing with its practical questions.

In the chapter on metabolism and in that on the viscera there is a very good *résumé* of our knowledge on the sexual differences in the blood, the pulse, respiration, susceptibility to poisons (chloroform, lead, opium, etc.), the thyroid gland, larynx, etc., etc.

The author deals next with menstruation and its psychic phenomena—the greater impressionability, greater suggestibility, and more or less diminished self-control of women at that time—a subject of much practical importance.

The subject of hypnotic phenomena occupies Chap. XII. Mr. Ellis has carefully collected a number of observations showing that somnambulism is more common in women, who are also greater dreamers; a slightly larger proportion of men talk in their sleep, but the percentage of women who

answer questions when asleep is much larger than that of men. Hallucinations in the sane are more frequent in women (Sedgwick). The lower nervous centres in women are more rebellious to control than those of men, and more readily brought into action. This appears from Dr. Silk's observations on the action of anæsthetics. If we consider also neurasthenia, hysteria, religious hypnotic phenomena, we find that hypnotic phenomena generally are decidedly more frequent and more marked in women.

Chap. XIII. deals with the affectability of women, Laycock's expression to indicate their quick psychic and physical response to stimuli. The vaso-motor system of women responds more readily to stimuli, as we see by considering the phenomena of blushing, the mobility of the face, the action of the pupil, the bladder, etc. The irascibility of women and their greater destructiveness when insane are related to this characteristic.

If we investigate the artistic impulse, we note the supremacy of men in painting, in the evolution of music, metaphysics, etc. In fiction and in the art of acting, women find a more congenial sphere, and often excel men. Leaving out of consideration the interpretative arts, the artistic impulse is vastly more spontaneous, more pronounced, and more widely spread among men than among women.

In the chapter on morbid psychic phenomena the questions of suicide, insanity, criminality, and their sexual incidence and characteristics are considered.

"Variational tendency of men" occupies an important and interesting chapter. We find abnormal variations of nearly all kinds more frequently in men (hare lip, talipes, supernumerary digits, abnormal ear, arithmetical prodigies, genius, idiocy, etc.), although the narrowness of the human pelvic outlet tends to establish equality and mediocrity, and to minimize these variations. From an organic standpoint, men represent the more variable and the more progressive element, women the more stable and conservative element in evolution.

In Chap. XVII. we find a good deal of evidence in proof of the greater physical frailty of men and the greater tenacity of life in women.

In the concluding chapter Mr. Ellis remarks that, although women bear the special characteristics of humanity in a higher degree than men, and in many ways women are leading evolution, it is futile to talk of the superiority or in-

feriority of one sex. The earlier arrest of development in women and the variational tendency of men are also factors to be considered ; moreover, in many important directions men lead evolution. As regards the respective fitness of men and women for any kind of work or any kind of privilege, we can form no opinion *à priori* on scientific grounds ; it can only be ascertained by actual experiment.

We have said enough to show that this is a very valuable scientific work which should appeal to a wide circle of readers. We wish it every success.

Headache and other Morbid Cephalic Sensations. By HARRY CAMPBELL, M.D., B.S.(Lond.). London: H. K. Lewis, 136, Gower Street. 1894.

This is unquestionably a very able and carefully-written monograph on a symptom of the greatest practical importance, and one which is present, as the author well remarks, in the majority of diseases. At the same time, headache is so often of such a distressing character, and so obtrusive that it may be the only complaint of the patient, or the only symptom for which he seeks relief, so that any contribution which helps us in our efforts to grasp its meaning, to clear up its association or relation, and diagnose its cause, is most welcome ; and it is not too much to say that anyone mastering this complete work should be most familiar with the complex subject of headache. In the search for material, the author has waded through an enormous mass of literature, of which he gives the bibliography and index, and he seems to have extracted therefrom the best essence, which, added to the results of his own observations, based on an analysis of 1,300 cases, contributes to the formation of an admirable treatise.

The book is divided into four parts, of which the first is of an introductory nature, and deals with the seat of the pain in headache. The author concludes that, in functional headache, the structures chiefly implicated are the extracranial, the *intra-osseous* (frontal and other sinuses), and the dura-mater ; while in organic headache, in addition to these, the bone, membranes, and brain itself may be painful.

Part II., on causation, takes up over 200 pages (*i.e.*, more than half the book), and is the most important as well as

most difficult part of the subject. The excellent clinical classification on p. 27 is founded upon causation, which Dr. Harry Campbell regards as the only logical method to adopt; although we must bear in mind that the causation of headache being often infinitely complex we cannot expect an ideal classification.

As regards age, headache is comparatively rare during the first few years of life; but we find it rapidly increasing after the age of four; in the old it becomes again uncommon, the chief cause being then granular kidney.

Under atmospheric conditions, the author especially mentions the effects of strong sun, cold, low barometric pressure, the presence of electricity in the air, sharp winds, etc., in producing headache.

Among mental causes, the principal ones which affect the head are retinal irritation and certain smells in the sensory sphere; suppressed excitement, especially, in the emotional sphere; and more rarely intellectual work, when of an intricate nature.

Then follows a discussion on headache due to intra-cranial disease (disease of the meninges and brain), one of the most important of all; and the author remarks on the great tendency of organic as distinguished from functional headache to interfere with sleep, a point on which Gowers lays great stress. In the headache following injuries to the head we must remember the possibility of its dependence upon slight localized meningitis, and the likelihood of relief by a surgical operation.

The chapter on disorders of the eyes in relation to headache is very fully and ably handled. The author divides the subject of irritation of the ophthalmic area into:—(a) Irritation of the retina (*e.g.*, a bright light), and (b) Irritation of the 5th nerve (glaucoma, eye-strain, etc.).

The connection between eye-strain and nervous disturbances has been especially investigated during the last 20 years; as the headache in these cases presents no special characters, it is very important to test the sight in every case. Dr. Campbell finds that, as we might expect, the blind suffer less frequently from headache than those who use their eyes for close work.

Among the nasal disorders producing headache, catarrh and polypus are probably the commonest, but practically any disease of the nasal cavity is capable of producing it, and no variety of headache more disturbs the intellectual process.

Aural and dental headache are also fairly common, and carefully described by the author.

In Chapters XIII. to XXI. the important relation of the condition of the blood to headache is fully discussed. According to Dr. H. Campbell it may be associated with:—

(1). Superabundance or undue richness of blood. General plethora.

(2). Blood impoverished in oxygen and food-stuffs. General anæmia.

(3). Poisoned blood—toxæmia (from drugs, foul air, renal and hepatic disease, uric-acidæmia, etc., etc.).

(4). Local modifications in cephalic blood-supply; active or passive congestion or anæmia of the head.

(5). Increased tension in the systemic arteries.

Haig's views on the association between megrim and uric-acidæmia are here considered, and the account of arterial tension in its relation to headache (Chapter XX.) is particularly good. As regards the relief obtained in certain headaches by lying down, the author attributes it rather to the complete rest secured than to the modification in cephalic blood-supply which is induced.

Under the heading of "Disorders of the digestive organs" the connection between megrim and gastric disturbance is considered, and we find very good reasons for the belief that many so-called dyspeptic headaches are in reality megrinous, although lacking the cardinal marks of classical megrim.

The headaches of puberty, the climacteric, etc., are discussed in Chapter XXIII.

To syphilis Chapter XXIV. is devoted. We find two varieties of headache in association with this disease—(a), functional; (b), organic—the latter characterized by (1) being circumscribed and localized; (2), tenderness; (3), nocturnal exacerbation; although these characteristics must not be looked upon as in themselves diagnostic.

In connection with rheumatism, it is observed that the subjects of this disease are prone to megrim, though less liable to non-megrinous headaches. Headache, it is important to remember, may alternate with joint-pain, gastric pain, backache, eczema, etc., and Dr. Campbell gives briefly the notes of many such cases.

Chapter XXVII. deals with the relation of sleep to headache—a very interesting question; the nature of morning headache, the headache coming on after torpid sleep, etc. Headache is not a marked feature in insanity, but Dr. Campbell

agrees with Mr. Bevan Lewis that cephalic dysæsthesiæ are common prodromal symptoms. Headache is, on the other hand, common in hypochondriasis, and, according to Briquet, in hysteria (*e.g.*, he gives 300 out of 356 cases).

Part III. is devoted to the question of symptomatology, with an account of the influence of headache upon the special senses (*e.g.*, disturbance of sight, diminution of hearing, presence of tinnitus, etc.); upon the emotions (*e.g.*, "the patient feels as if he were going out of his mind"); and upon the intellect (which is usually clouded, though occasionally sharpened, drowsiness, etc.).

The appearance of the eyes is often characteristic in headache, *e.g.*, drooping of the eyelids, sinking in of the globe, loss of lustre, etc., which one recognizes so frequently as belonging to the physiognomy of headache.

In talking of *clavus*, among other morbid cephalic sensations, Dr. Campbell shows how the halo of antiquity or that surrounding an illustrious name may help in handing down an error or imperfect observation; for *clavus*, which is usually looked upon as a definite localized stigma of hysteria, is in reality variable in its situation; it may accompany various conditions, and is rare in hysteria. This more or less applies to *globus*, which is so often looked upon as pathognomonic of hysteria.

Chapter VI. in this part deals with the subject of painful areas.

Among the structural changes in extra-cranial tissues consequent on headache, the author refers to scurf, premature greyness, alopecia, xanthelasma, etc.

Tenderness of the scalp, Dr. Campbell finds to be very common in headache, and occurs also independently of it, as in cases of "nervousness;" it is usually most felt after the pain has disappeared, and the presence of hair predisposes to it.

Besides headache, the author discusses other sensations which are frequently described about the head; a sensation of pressure upon the head, sensations in which the head seems heavy, and other vaguer sensations (lightness, etc.); these may occur with or without pain.

A sensation of heat in the head is common and often accompanies pain; a sensation of cold is much less frequent. These, like the preceding ones, are commonly felt on the crown.

Chapters XII. and XIII. deal with nervous itching of the

head, common in highly nervous patients ; with sensations of bursting, usually due to vascular distension, numbness, giddiness, and tinnitus aurium.

Chapter XIV., on cervico-occipital and occipital headache, of which the author has made a special study, is very interesting and complete. And this also applies to Chapter XV., on "periodical sick-headache" and megrim, the former being frequently only a form of the latter. The chief factors in the causation of genuine megrim Dr. Campbell considers are hereditary predisposition, abundant nitrogenous diet, and eye-strain.

Part IV. is devoted to the treatment of headaches. A proper understanding of headache, practically embracing the entire field of medicine, the treatment of headache, which means the treatment of its causes, involves a complete knowledge of therapeutics, so that the author has wisely but sketched the main factors which must guide us in our treatment. At the same time, the *resumé* which he gives in the concluding chapters is a very useful addition to the book. In Chapter I. we have in a few pages an excellent description of the method which may be followed in investigating a case of headache in order to arrive at a diagnosis, upon the accuracy of which, of course, we are dependent for legitimate treatment. Chapter XV., on drugs employed in the treatment of headache, includes all those which have been found at all efficient in his and others' experience, with good directions as to the cases in which they are likely to be of service.

This sterling book is dressed in a befitting garb, for which the publishers are to be congratulated.

A Rejoinder to Professor Weismann. By HERBERT SPENCER.
Reprinted from "The Contemporary Review." London :
Williams and Norgate, Covent Garden. 1893.

A perusal of this pamphlet, dealing with the vitally important question of the "inheritance of acquired characters," and in which the author meets the arguments urged against his criticisms of Weismann's doctrines, should prove most interesting, and it is not claiming too much for it to say that it will cause many a one to hesitate before proclaiming that "the last bulwark of the Lamarckian principle is untenable," to quote Weismann.

In considering the progressive degradation of the human little toe, strong arguments are given for the view that as arboreal habits have given place to terrestrial habits, the inner digits have increased by use while the outer digits have decreased by disuse.

An inquiry into the characteristics of social insects (wasps, bees) affords good ground for holding "that one set of differences in structures and instincts is determined by nutrition before the egg is laid, and a further set of differences in structures and instincts is determined by nutrition after the egg is laid"—a conclusion diametrically opposed to the theory of germ plasm.

If we take ants, Mr. Herbert Spencer shows that the production of their various castes does not result from the natural selection of varying germ plasm, and in the case of soldier-ants he asks, "Can anyone be prepared to say that survival of the fittest can cause the decline of the self-feeding faculty?" We see in them exhibited the importance of nutrition of the larvæ in determining unlike structure of classes, and it is difficult to resist the conclusion that the ancestral ants must have been most like the Amazon ants or soldier-ants; so that in their descendants co-adapted parts have been inherited.

In discussing the case of the reduction of the whale's hind limbs (*Balænoptera borealis*), Mr. Spencer gives three reasons against Weismann's hypothesis of panmixia, and holds that the only reasonable interpretation is the inheritance of acquired characters.

An Essay Concerning Human Understanding. By JOHN LOCKE. Collated and annotated with Prolegomena, Biographical, Critical, and Historical. By ALEXANDER CAMPBELL FRASER, Hon. D.C.L., Oxford, Emeritus Professor of Logic and Metaphysics in the University of Edinburgh. Two vols. Vol. I. Oxford. 1894.

Although we are obliged to postpone our review of this splendid work to a future number, from the limited time at our disposal before going to press, we must now record a high opinion which we entertain of the manner in which it has been edited by Professor Fraser. In the meantime every one interested in the psychology of Locke ought to possess himself of this valuable work.

Les Grands Aliénistes Français. Par le Dr. RENÉ SEMELAIGNE, Médecin de la Maison de Santé de Neuilly-sur-Seine. Paris. 1894. Tome Premier.

We can speak in the highest terms of this work, and are glad to observe that the author promises an additional volume. He engages in the undertaking with the enthusiasm that is natural in a man who is closely connected by family ties with the most distinguished alienist of the group of French physicians whose lives are recorded in the volume before us, for M. Semelaigne is the great-grand-nephew of Philippe Pinel. The author is well known and appreciated by a number of English specialists who have formed his acquaintance during his visits to this country, having been present at the Centenary of the foundation of the York Retreat, when the Association met in that city in 1892, and when he attended the Dublin Meeting this year.

These biographies are illustrated by excellent portraits. No one could be more competent to write such a work. This volume contains the names of Pinel, Esquirol, Ferrus, Jean-Pierre Falret, Felix Voisin, Georget.

Some six years ago Dr. Semelaigne chose for his Inaugural Thesis, which was submitted to the Faculty of Paris, March, 1888, the life of Pinel, "the great figure of the philanthropic doctor," the memory and traditions of whom surrounded him when he was a boy. The present work is dedicated to the memory of his maternal grandfather, Dr. Casimir Pinel, son of Louis Pinel, and nephew of the benevolent and gifted physician of the Salpêtrière and Bicêtre. The cradle of the family was Saint-Paul-Cap-de-Joux, but Pinel himself was born at Saint-André-d'Alayrac, a neighbouring village.*

It fortunately occurred to the writer of the Thesis that other celebrated alienists in France justly deserved similar testimonies to their lives and work. In consequence, the work under review was prepared.

It would be impossible to transfer to our pages, much as we should like to do so, an abstract of the lives of these remarkable men. We can only refer the reader to the book itself, and commend the clear and excellent style in which these interesting and valuable records are written.

* In the Department of Tarn, in the south of France.

Lunatic Asylums. Their Organization and Management. By CHARLES MERCIER, M.B. Charles Griffin and Co. 1894.

This, the latest publication of Dr. Mercier, is carefully written, and although there is nothing novel in its contents, yet asylum medical officers will find the orderly arrangement useful. Interleaved, this book could be made available for memoranda *in loco*.

As the author points out, there has been no systematic treatise on this subject written before; at the same time credit must be given to writers of many excellent monographs and papers which have appeared from time to time, providing those interested in the insane in asylums with useful information concerning improvements introduced, which in the lives of many living medical psychologists have been nothing short of revolutionary when we compare the modern asylum and its treatment with the condition in the first half of the century.

We must accept, we confess, many recommendations with hesitation, but on the whole the principles laid down by Dr. Mercier accord with our present day notions of humanity guided by a scientific spirit. The time has arrived when experience has shown that we are not doing all our duty in huddling together a mass of insane, even though they be housed in palatial buildings with requisite attention to their food, their sleep, and their outdoor airing. It is by individualism in treatment that in most cases the surest route to recovery is found. This, of course, cannot be carried out without an adequate staff of medical officers and attendants in pauper asylums. The writer emphasizes what is daily carried out in institutions containing a smaller number of patients—that no restriction is justified that is not required by the circumstances of the individual case, so that the curtailment of liberty may be realized as little as possible.

The question of the size of asylums is discussed, and we hold that a building erected for the care of about 700 patients is as large as can be conscientiously managed by a superintendent who is devoting sufficient time to his patients and taking a scientific interest in his profession. The heating and lighting of asylums are entered into, and in the wards the more extensive use of screens is advocated to enable the more intelligent patients to meet together for social games away from the gaze and disturbance of the multitude. The

question of beer for the patients is referred to, especially as a beverage which induces the patients to work, and Dr. Mercier again brings forward his scheme of tokens fully, which has already appeared in the Journal. The subjects of occupation and amusements are freely treated, and there are also chapters on suicide, accidents among the insane, and instructions concerning precautions to be adopted in the event of fire.

The last section of the book is devoted to the consideration of the staff and their duties, and Dr. Mercier rightly gives his adherence to the principle that the chief medical officer should be the superintendent of the asylum, as the legislature has enacted, and have the responsibility of office, while the steward and other officials should be subservient through him to the Committee of Visitors. The status of the assistant medical officers is fully dealt with, and the author is alive to their grievances, which we hope ere long will have attention. Some helpful rules for case-taking are laid down, with the method of mental analysis based on the system of Herbert Spenser, which the author has elaborated in a previous work. The duties of attendants are well considered, and a scheme for instruction is included. There is also a considerable amount of matter devoted to statutory duties, with a detailed explanation of the working of the present Lunacy Law.

PART III.—PSYCHOLOGICAL RETROSPECT.

1. *English Retrospect.*

Hospitals for the Insane.

(Continued from p. 207.)

Barnwood House.—The retirement of Dr. and Mrs. Needham naturally forms the subject of remark in many parts of this Report, and cordial congratulations are offered to Dr. N. on his appointment to the Lunacy Commission. The recent history and progress of the institution have been so identified with Dr. Needham's name that his resigning its management might seem to threaten a blow to its success; but the worst compliment that could be paid to him would be to assume that he has built up and left the system on such a narrow and personal foundation; and we feel sure that Dr. Soutar will be found to be a competent follower in Dr. Needham's footsteps.

The Committee state that nearly £3,000 is expended in charity, and that no one can be aware, without seeing the books, who are recipients thereof. They further state that no distinction is made between those who are and those who are not paid for. The mental condition, not the amount paid, is the guide to the treatment which the patient receives.

Dr. Soutar says, "The most hopeless cases are as usual those who in the acute stage of illness were treated at home, or placed in private houses." He differentiates between "relieved" and "not improved" in discharging a patient on a consideration of the question whether a seeming improvement is the expression of a sane state of mind or merely the impression produced by corrective surroundings. Might we not add that a slight touch of dementia has a wonderful effect in "improving" cases?

Bethlehem Hospital.—Dr. Percy Smith, who takes accurate notes of matters arising out of the Lunacy Act, 1890, states that one-third of the certified admissions come in on urgency orders. To 96 of the admissions it was necessary to hand the notice of right to a personal interview. Of these 12 availed themselves of the right—none of them with success. The following figures respecting voluntary boarders are of interest. The Commissioners did not order the certification of any of them.

VOLUNTARY BOARDERS.

					M.	F.	T.
Remaining Dec. 31st, 1891	...	...	...	...	4	9	13
Admitted	...	...	...	...	18	24	42
					<hr/>		
Under care in 1892	...	...	...	...	22	33	55
					<hr/>		
Left the Hospital (refusing to remain)	...	...	...	...	1	1	2
Discharged Recovered	...	...	...	...	9	13	22
" Relieved	...	...	...	...	1	4	5
" Uncured	...	...	...	...	1	—	1
Placed under Certificates	...	...	...	...	4	4	8
Died	...	...	...	...	—	—	—
					<hr/>		
Remaining December 31st, 1892	...	...	...	...	6	11	17

The Lawn, Lincoln.—We are glad to see the appended statement in the Committee's report :—

"The treatment of the patients remains unchanged, moral and intellectual influence being found more efficacious than medical appliances."

Whilst thoroughly endorsing the great advantage of these influences the Committee see great benefit arise from medical treatment, both general and special, and they are conscious of an improvement in many of the most hopeless cases, more tidiness and less destructiveness, where the surroundings are bright and cheerful. It is with this view that decorations have been carried out, and objects of interest, such as flowers, animals, and more books, have been introduced.

St. Luke's.—No less than 23,706 patients have been admitted

since the opening in 1751. In a table given by the Committee the disposal of these cases is shown, and it is curious to remark that while of the cases deemed curable on admission 45 per cent. have recovered, of those deemed incurable 7 per cent. have also recovered. Prognosis is far from an exact science. We sincerely regret that the vast figures above given have not been turned to public advantage, and that the tables of the Association have not been introduced by Dr. Mickley, upon whom we would press their importance. After all the trouble taken by the Association in preparing these forms, it is regrettable that any institution should fail to make use of them.

St. Andrew's, Northampton.—The sphere of usefulness here is being constantly increased. We are glad to see that this is brought about by purchasing and altering private houses and villas quite as much as by enlarging the parent institution. Size, whether highly decorated or not, may become rather overpowering even to an insane brain. We believe that the greatest advance to be made in the treatment of insanity, whether it be in a county or private asylum or a registered hospital, is in the direction of breaking up masses, and in the substitution of domestic surroundings (where possible) for hard machine-like routine.

When the Commissioners visited the hospital in February, 1891, they made the following entry in the visitors' book:—

This hospital affords excellent accommodation, but the arrangements are so well adapted to promote the recovery of curable cases that the presence of many incurable and demented in the wards, to the exclusion of those whose mental condition is more hopeful, should not be encouraged.

A large number of the patients are, we fear, now beyond appreciation of the comforts, and even luxuries which surround them, and when it becomes a question between them and those recoverable by such surroundings, the latter appear to us to have the higher claim to the benefit of the charity.

St. Ann's Heath, Virginia Water.—This institution is now nearly full, and though only eight years old is in point of numbers at the head of the registered hospitals. In "recoveries," too, it holds the same proud position of the year. We have always hoped for some workable definition of what a recovery is for purposes of comparison. It is obvious that with a shifting basis for comparison opinion is substituted for fact. Dr. Rees Phillips remarks that cases of general paralysis sometimes if treated in the early stages have sufficiently prolonged lucid intervals as to enable the patient to resume the management of himself and his affairs. "The organic disease still exists, but the mental symptoms have disappeared. Herein will be found the explanation of the recovery of two cases of general paralysis in Table XI."

A large amount of useful material is to be found in Dr. Phillips' report, but some may think that its excellent tone is a little discounted by the inclusion therein of such mundane matters as the admissions, discharges, and deaths among the pigs.

A very important branch of the work at St. Ann's is the reception

and treatment of voluntary boarders. About 30 per cent. of those admitted needed subsequent certification. Though the benefits of the system may be carried too far, there can be no doubt that much good has arisen from the extension of facilities by the Act of 1890.

Wonford House.—It is to be regretted that this institution should feel any doubt as to its finances; but the Committee has to point out that it may be a question whether, unless increased income arises, it will not be necessary to close the seaside house at Dawlish. It has been said that a debit balance, if not necessary, is yet good for the working of any place that depends on public support; but so many instances of success attending success are to be found in kindred institutions that it may be taken for granted that a good bank balance is a help to efficient working. It does seem a matter for reflection that while some hospitals are flourishing, others having exactly the same right of appeal to public generosity should fear the wolf at the door.

York Lunatic Asylum.—Dr. Hitchcock has the complaint so often made by public asylum superintendents that old paralytic cases tend to block up the hospital. He reviews his ten years' work, and claims a recovery-rate for those years of 55.16. As said above, a good recovery-rate is a source of comfort and congratulation; but comparisons with other institutions are—well, let us say, extremely uncertain. So many things have to be considered—luck in having curable cases, a fair percentage of hardy annualls, and so on. But Dr. Hitchcock is quite right in calling attention to the fact that this satisfactory rate has come about with a studied disregard on his part of all direct sedatives. He trusts to liberal diet, exercise, and baths. He uses no sleeping draughts for any cases, and finds that no extra noise at night results. *Tot capita, tot sensus.*

The York Retreat.—Note is made of Dr. Baker's retirement after 18 years' service, and of Dr. Pierce's succession. It is somewhat sad to read in the report of the Committee that there are financial fears and misgivings. This institution, which may in all sincerity plead for help from the public, resting its plea on the enormous advance in the treatment of the insane which has been brought about through its instrumentality in times gone by, finds that charity can be carried too far. The minimum rate is at the present time 14s. per week. But the need of donations is great, and an appeal has already been made for help for this charity.

Aberdeen Royal Asylum.—Further accommodation and extension is in progress here. In taking stock of what is required in this way Dr. Reid urges the necessity of dealing with as many chronic cases as possible *outside* the asylum. He supplies the following texts of fitness for asylum, poorhouse, and boarding-out respectively:—

The cases suitable for wards of poorhouses and for "boarding out" are mostly analogous, but with this distinction, that a patient unfit for any kind of employment, and destitute of any appreciation of liberty, is not a subject to be "boarded

out." All patients who are demented, or are labouring under harmless delusions, and who are cleanly and quiet, and not specially requiring asylum treatment, are regarded as best suited for the poorhouse or to be "boarded out." Patients who are so demented as to require special attention, or who, along with enfeeblement of mind, are subject to exacerbations of excitement or depression, or who are suffering from organic brain disease, or crippled by physical ailments, or whose disorder degrades them and makes their habits disagreeable, are not the subjects to be entrusted to poorhouses, or to the care of persons outside an asylum. Such cases require careful attention, both by day and by night, and this is obtainable only in a properly-equipped asylum.

Crichton Royal Institution.—Dr. Rutherford had two recoveries after $7\frac{1}{2}$ and six years' treatment. He remarks that no case where dementia has not actually set in should be considered absolutely hopeless, to which we would add that oftentimes it is extremely hard to say whether dementia has or has not set in.

I think it right to point out the saving to the parishes in maintenance by the policy pursued during the last ten years of discharging every patient whenever he becomes fit for removal, either by recovery or by becoming harmless and no longer amenable to curative treatment. While, as a private asylum, numerous admissions and large numbers are a sign of prosperity, as the pauper asylum for the district, small numbers resident, and numerous discharges, are the tests of efficiency; for the smaller the numbers the better for the ratepayers. Insanity is a costly item in parochial expenditure, and asylum care is the most expensive.

In looking over the figures of the chartered asylums where large numbers of both pauper and private patients are admitted, one cannot help feeling a little regret that it has not been found possible to separate some of the statistics relative to the two classes. No doubt an enormous amount of trouble would be entailed, perhaps more than results would justify. But, seeing that, although insanity as a definite disease has its basis on physical circumstances common to all classes and ranks, yet circumstances moral, educational, financial, and so forth must have great influence in determining and shaping its course, it might be supposed that in such matters as causation, duration of disease before admission, form of disease, recovery rate, etc., it would be possible to find a suggestive divergence. We are aware that the English Commissioners in their Quinquennial Extra Tables do to a certain extent give some information of this nature, but such comparison as they may afford lacks the benefit of being made by those who have both classes under observation and under one idea of treatment.

Royal Edinburgh Asylum.—As is often the case there is so much to notice in this report that it is impossible to do it full justice here. Dr. Clouston has a happy habit of giving warning and instruction on matters that lie, chiefly as causes, between sanity and insanity to those laymen who have the courage to read asylum reports. If more read and followed up these words of wisdom, more would have the preparation and fore-knowledge wherewith to fight off the first beginnings of mental trouble.

Dr. Clouston cannot complain, as his English colleagues do, of his

asylum being choked up by chronics. His admissions are more than half the average population of the asylum. Of 882 pauper inmates chargeable to Edinburgh parishes, 486 are in Morningside, 299 boarded out, and 97 are in lunatic wards of the poorhouses. Comparing these figures with those for all England, there is great divergence. We believe that boarding out in England hardly exists under the same conditions as obtain in Scotland; but taking the nearest approach, *i.e.*, residence with relatives or others, as an equivalent, we have the following proportions:—

EDINBURGH.			ALL ENGLAND.		
In Asylum ...	486	per cent. 55·1	per cent. 72·08	53,258	{ In County and Boro' and Private Asylums & Regis- tered Hospitals In Workhouses With friends & others
In Poorhouses ...	97	11·0	20·86	16,878	
Boarded out ...	299	33·9	7·06	5,709	

Even in London, where there is special machinery for housing chronics and imbeciles, there are still 62·8 per cent. in asylums, 35·6 in workhouses and imbecile district asylums, while the ridiculous proportion of 1·5 represents the number boarded out and residing with friends.

What is there in the Scotch lunatic that allows of his less expensive treatment out of an asylum? One can hardly say that a tendency to dementia is a special characteristic of the country, nor can we say, in the face of the national motto, that a lamb-like acceptance of interference with liberty is likely to be a solution of the question. The truth is that a good deal of the English system of dealing with pauper lunacy wants burning. It is too old, too much tied down by a network of Acts. Scotland suffered long, but had the advantage of fresh ground to build on.

We note that in reference to Mr. Corbet's article on the increase of insanity, Dr. Clouston, in giving battle to him, makes use of a curious argument, *viz.*, that if the undoubted increase in the officially recognized pauper lunatics were due to increased production of lunatics rather than, as we all contend, to increased recognition and greater longevity, a similar increase in private lunatics would be found, which is not the case. We must confess that hitherto we have taken pauper lunacy as the standard and have endeavoured to account for the undoubted proportionate shortness of private lunacy by the official recognition of the latter being circumscribed, unreported residence with relatives and *others* bearing a large proportion. However, it is a point on which many opinions may be held.

Dr. Clouston enumerates three "insanities," popular, legal, and medico-psychological. The definitions of each are excellent. Dr. Clouston says that all are changing in the direction of being more inclusive. Is this quite so with the legal variety, especially that sub-variety, "certifiable" insanity?

In remarking on three cases admitted whose grand-parents were formerly patients of his in the asylum 30 years ago, Dr. Clouston states, as a proposition, that in each succeeding generation where there is strong heredity the disease appears at an earlier age than in the preceding generation.

Glasgow Royal Asylum.—Paupers are slowly but surely being displaced by private patients, it being the intention to ultimately have none of the former. Dr. Yellowlees complains much of the character of the admissions, which were all (except two) of private patients. He has been, in fact, "sweeping in the accumulations of chronic lunacy from this great city, for which no such accommodation was previously obtainable." He says that the result is disastrous as regards the recovery rate. We have so frequently alluded to this in connection with the English asylums that we should not again refer to it here, were it not that as far as we can see this is the only institution where the complaint is made as to private patients in an official report. Not even Dr. Yellowlees can make his tale of bricks without straw. A debased recovery-rate may mean many things; in most cases, however, it means bad material. So, too, an inflated recovery-rate may mean many things, but chiefly good luck in getting cases that will respond to treatment.

An interesting case is noted, that of a woman who, under insane impressions, refused to take food, and was fed by tube for the last three years of her residence of ten and a half years. One day she drank a glass of beer when thirsty, and from that time got rapidly well; but she never could or never would give an explanation of her obstinacy.

A country house at Stirling has been hired for the purpose of giving a change to those patients who can be accommodated there from time to time.

Royal Montrose Asylum.—Dr. Howden has no very great faith in statistics, chiefly because, though they may be right as far as they go, they are so incomplete as not to permit of any accurate deductions being made. But he has made a study of a number of cases of general paralysis. He considers that figures point to debauchery being a prolific factor in the causation of the disease.

Murray's Royal Asylum, Perth.—Change of asylum for the chronic bad patient and for the unsatisfactorily convalescent is insisted on by Dr. Urquhart. He has during the year temporarily exchanged such cases with other asylums. He is of the opinion, which we heartily endorse, that this practice should be instituted as between county asylums in the matter of their paupers. In private practice there can

be no question that a change of surroundings often rescues a patient from chronicity. No doubt a certain amount of trouble and expense would be entailed, but what a lot of expense might be saved if only a small proportion of cases recovered by means thereof. Assuming that what with maintenance and establishment charges a patient costs £26 per annum while in an asylum, every patient who becomes a chronic resident therein becomes an annuitant to that amount. In other words, the authorities have to provide for a yearly payment which, if capitalized on the basis of post office annuities, would be represented by a sum of about £550 for a person 30 years of age. There is undoubtedly money in this. Dr. Urquhart likewise insists on the necessity of fighting against the spread of neurosis by timely education and preparation of the products of neurosis. He laments that so little has been done in this direction.

Fife and Kinross.—Though it had been hoped in former years that the average population would not increase, this hope was not realized in 1892, for the admissions were 13·8 per cent. higher than the average. A building of the hospital character is progressing. Dr. Turnbull notes that the excavations for this, which involved a good deal of heavy cutting through rock, were efficiently carried out by a party of patients.

Inverness.—This, the first report since the death of Dr. Aitken, contains the following extract from Sir Arthur Mitchell's report of March, 1893. We feel sure that the opinions therein expressed will be endorsed by all members of the Association.

It is recorded with regret that, since the asylum was last visited, Dr. Aitken, the Medical Superintendent, while travelling on the continent, died, after a short illness, on the 11th of September, 1892. He had superintended the asylum since it was opened, and for the long period of thirty years had done his work most faithfully and zealously. He was identified with the whole history of the institution, which had been greatly changed and enlarged while under his care. At the time of his death a further extension of the buildings was under consideration, and he was then devoting his earnest attention to the character which this extension should take. Of late years he had not been in robust health, but, in spite of this, he was constant and unfailing in the performance of his work. He was held in much esteem and respect, and is greatly missed by a large circle of warm friends.

Dr. J. C. Mackenzie, formerly A.M.O. at Morpeth, has taken Dr. Aitken's place, and commences his report by paying a tribute to the memory of his predecessor.

We note that the tables of the Association are not adopted in their entirety. We hope that they may be in future.

Lanark. Kirkland Asylum.—In discussing the question of discharging patients, and the responsibility involved therein, Dr. Campbell Clark says:—"I am free to admit, however, that faith in the patient is sometimes more justified in its results than one would dare to expect." He, however, points out that much depends on after-care, and insists on the necessity for an After-Care Society in Scotland such as exists in London.

There is a very interesting table showing the workings of the asylum for twelve years.

Of 1,486 admissions 633 (42·6 per cent.) recovered; 19·1 were eventually boarded out—about half with friends and half with strangers. Of these 46 have been returned on the hands of the asylum authorities. Similarly 58 were sent to lunatic wards, and of these only eight have been returned.

Midlothian. Rosslynlee Asylum.—We note with regret that no statistical tables are appended to the report.

Roxburgh. Melrose Asylum.—No case of general paralysis occurs among the admissions, nor, indeed, in the asylum at all, the admissions being 68 and the population 236.

The report of the Board states that the charge for paupers is £25 per annum, it having been £29 ten years ago.

(To be continued.)

2. Retrospect of Criminal Anthropology.

By HAVELOCK ELLIS.

Criminal Anthropology at Chicago and Rome.

At the session of the International Medico-Legal Congress at Chicago last autumn some twenty papers bearing on various aspects of criminal anthropology were brought forward. They were nearly all by Americans, and for the most part have not yet been published. It is announced that they will appear in subsequent issues of the "Medico-Legal Journal." Dr. G. H. Hill dealt with the disposal of the criminal insane; ex-Judge H. M. Somerville with their improved condition in relation to the law; Dr. W. B. Fletcher with the establishment of houses of detention for the alleged insane prior to commitment; Dr. F. C. Hoyt dealt with sexual perversion from the medico-legal standpoint; Dr. F. E. Daniels read a paper advocating the castration of habitual criminals and sexual perverts, a proposal not accepted by subsequent speakers, who advocated hypnotic treatment or isolation; Dr. N. O. B. Wingate dealt with journalistic "suggestion" as a factor in the production of crime, arguing that those persons who sow the seeds of contagion of mental diseases should be treated in the same way as in the case of physical contagion; Mr. G. T. Davidson, a New York lawyer, read a paper on the criminal aspect of suicide, protesting against a recent law in the State of New York which has made attempted suicide a felony, punishable by fine and imprisonment, and pointing out that confinement (unless accompanied by skilful medical treatment) can only intensify the moral misery and physical disturbance of would-be suicides; Dr. E. S.

Talbot dealt with race degeneracy as exhibited in abnormalities of the jaws and teeth; Dr. Harriet Alexander read a paper on anthropometric researches among prostitutes; Dr. F. Lydston on anthropometric researches in the criminal class, and also on crimes among negroes; and Dr. J. G. Kiernan read a paper on simulation and conspiracy as tests of sanity, and another on psychiatry and criminal anthropology. A general account of the proceedings is given in the "Medico-Legal Journal" for last September (only recently issued), and some of the papers are reprinted in full.

There is little of interest to report concerning criminal anthropology at the Roman Congress. The most noteworthy point is the fact that criminal anthropology now, for the first time at an International Medical Congress, receives official recognition, and is introduced into the title of the psychiatric section. Although a large number of papers dealing with criminality were presented, not many were read. Probably the president of the section (Lombroso) feared to give undue precedence to a subject with which he has himself been so closely identified. Among the more noteworthy papers and discussions were Sergi and Mingazzini's report on skulls and brains of criminals, Pellacani's paper on a similar subject, Ferri's account of his latest researches into homicide, one of his points being the evil influence of Longobardic blood in Italy, and a demonstration of an instinctive criminal by Lombroso, which attracted a large miscellaneous audience from other sections. Among foreign members present whose names are identified to some extent with criminal anthropology may be mentioned Benedikt, Kurella, Näcke, Morel, and the present writer, who had been invited, as a compliment to the growing English interest in criminal anthropology, to share the secretarial duties of the section. The Italian criminal anthropologists were present in full force—Marro, Ferri, Rossi, Mingazzini, Penta, Sighele, Gurrieri, Roncoroni, etc.

The Torus Palatinus.

Since Stieda's monograph in the Virchow "Festschrift" the torus palatinus (or the central longitudinal bony ridge sometimes found on the palate) has attracted considerable attention. Stieda concluded that the frequency of the torus was largely influenced by race. Dr. Näcke, from an examination of 117 women and 270 men (sane and insane), finds that it may be regarded as a sign of degeneration (P. Näcke, "Der Gaumenwulst [Torus Palatinus], ein neues Degenerationszeichen," "Neurologisches Centralblatt," No. 12, 1893). He finds the torus in 22 per cent. of the subjects examined, and more commonly in women than in men. The frequency increases in going from the sane to the insane, and from the insane to the criminal insane; in this there is a resemblance to the other signs of degeneration. It was especially frequent in association with broad Mongoloid faces with wide palates. There was no reason to suppose any con-

nection with syphilis, but considerable ground for concluding that there is a connection with rickets and similar disturbances of nutrition. Dr. Näcke is not able to throw any light on the question of heredity.

Dr. Kurella has also recently made an independent examination of the torus palatinus. Among 153 insane criminals of Slavic and German race he found it 26 times, or in 17 per cent. He has found it among Polish aristocratic families, apparently of Tartar descent, and regards it as an arrest of development, producing an approximation to many Mongoloid races, among whom it is very common, and to the anthropoid apes.

Two Moral Idiots.

Bleuler is among those who identify instinctive criminality with "moral idiocy;" he would regard it as a pathological abnormality ("Ueber moralische Idiotie," "Vierteljahrsschrift für gerichtliche Medicin," 1893, supplement). He presents in full detail the case of E., born in 1865, a clergyman's son, and now an inmate of his asylum. There are some traces of moral idiocy in the family and ancestry. He himself in appearance is regarded as handsome by those who do not know him well. His expression is sly, the face asymmetrical, beard sparse, genitals developing late. There are slight neurotic symptoms, and he is very intolerant of alcohol. From his earliest years, and in spite of careful education, he has shown no moral sense, and has been constantly untruthful, and reckless of the distinction between *meum* and *tuum*. He has always been lazy, but there is no notable defect of intelligence. He took every opportunity of stealing, and showed great skill in making friends with all classes in order to obtain petty advantages or to gain chances of appropriating money or articles. He has never shown the slightest sign of remorse, though his memory is very clear and good. He affected great sincerity, and was clever in deceiving. He does not indulge either in venereal or alcoholic excesses, though he likes eating and drinking, and his sexual feelings are fairly normal. He does not show any special anxiety for revenge, but on the other hand he has never shown any sign of sympathy with any living creature. He possesses æsthetic feeling, but no religious feeling. He is industrious in the asylum, and has also learnt to play the violin. He is vain, but not excessively so. His intelligence is good without being much above the normal level, and exhibits no anomalies. The psychological history of this case is interesting on account of the care and fulness with which the subject's mental qualities were investigated. No one who risks a diagnosis of "moral idiocy" can afford to minimise this part of the investigation.

The story of a child who might also be described as a moral idiot, but who belonged to a lower social class and was not so fortunate as to reach the asylum, is given by Bérard at length, with a portrait ("Archives d'Anthropologie Criminelle," Sept., 1893). Blanche

Deschamps, a girl of thirteen, belonging to Grenoble, murdered a companion of her own age named Philomène Lambert. She was illegitimate, and her father is unknown; she worked in a spinning-mill. In order to obtain money for sugar and coffee—for she was a greedy child—Blanche robbed Philomène. She was discovered and forgiven. But she then planned a more terrible crime. Having led Philomène away to a neighbouring village, she made her drunk with coffee and brandy, which she paid for herself though very avaricious, and then took her purse, which, however, the other child recovered, threatening to accuse the thief. Shortly before the paths of the two children diverged, Blanche again took the purse, and then pushed her companion from a bridge into a shallow stream in which some time before a little girl had been found violated and murdered. Philomène was not killed, and Blanche climbed down into the stream and held her under water until she was drowned, after giving several blows with a stone to ensure death. She then went to the victim's parents to avoid suspicion, explaining that she had left Philomène in the street rather tipsy, and had herself fallen into a canal. She behaved quite naturally, and the Lamberts took care of her and dried her clothes. She then went to her mother, and gave her all the money she had stolen as part of her own wages. (No feeling of remorse is involved in this action; it simply seems that the original impulse of greediness is exhausted by the excitement of the deed.) She was subsequently arrested, and after persistent denials at last confessed. During the trial she was perfectly calm and self-possessed; it was shown that she was on good terms with Philomène, and that the only motive was greediness. She never exhibited the slightest remorse, and was only moved when sentenced to prison for ten years. When in confinement she wrote home to her mother to "take good care of the house, for some day it will belong to me." This child is a typical example of that group of youthful instinctive criminals, frequently girls, who commit serious offences under the spur of the impulse of gluttony which is normally so imperious in a child's life. (The history of Marie Schneider, for example, narrated at length in the German edition of Lombroso's "*Der Verbrecher*," corresponds precisely at nearly every point with the history of this child). This group of youthful criminals presents psychological problems of some importance, and has not yet received sufficient attention. Among children's slighter criminal acts, prompted by greediness, are far from uncommon, and it is not clear at present how far such acts are significant of permanent and organic perversion.

A Criminal Family.

The history and genealogical tree of a Brittany family of criminals through five generations has recently been published by Dr. Aubry, the author of "*La Contagion du Meurtre*" ("*Une Famille de Criminels*," "*Ann. Med.-Psych.*," Nov.-Dec., 1892). The history

begins in the last century with Aimé Gabriel Kérangal and his wife, who were both normal so far as is known. The outcome has been a family of eccentrics, of criminals, of friends of criminals, and of prostitutes; but none of them were insane, or recognized as insane. It is very interesting to find that one branch of the family is free from crime, and includes a poet and a painter of great talent who have both reached high social position; this point has a bearing on the kinships of genius. Suicide, incest, and all sorts of reckless licentiousness have flourished in the family. Their impunity has been very remarkable, although besides their proved crimes there have been various attempts at crime and many merely suspicious occurrences. Crimes of blood are laid to the charge of seven persons in the genealogical tree; other offences to nine persons. It is probable that the Kérangal family will be added to the stock examples of criminal heredity.

A Land of Congenital Criminals.

Three of the most brilliant and energetic of the younger criminal anthropologists of Italy (A. G. Bianchi, G. Ferrero, S. Sighele) have recently combined to publish an interesting and suggestive study of various phases of Italian criminality to-day, more especially those phases which may be said to be moribund ("Il Mondo Criminale Italiano," Milano, 1893). The book consists largely of an analysis of some recent criminal trials; perhaps the most generally interesting of these studies is one which leads up to the investigation of a particular district exhibiting very remarkable phenomena.

Artena (formerly called Montefortino) is a picturesque and elevated region in the Velletri district of the province of Rome, the most criminal of all the Italian provinces, it may be noted. It is an agricultural district; the soil is good, and the people are fairly prosperous; poverty in its lower grades is unknown; notwithstanding, the people of Artena have been brigands, murderers, and thieves for at least seven hundred years. It was in 1155 that they first began to acquire their reputation in Italian chronicles, and they have maintained it, deservedly, ever since. Many efforts were made to combat their criminality; in 1557 Pope Paul IV. seems to have come to the conclusion that the case was desperate, for in an edict of that date, after referring to the *mala vita universale* of these people as notorious for many and many years, he gives permission to any person to kill them. But even edicts of this severity seem to have been powerless against the still stronger laws of heredity and custom. During the years 1875-1888 the murder-rate for Italy generally was 9.4 per 100,000; for Artena it was at the rate of 62; the rate for assaults was higher in about the same ratio, and while thefts during that period were in Italy generally 48 per 100,000, in Artena they were 212; highway robberies were no less than 39 times more numerous in Artena than in Italy generally. Some account is given of one family (Pomponi)

in which the father, the mother, and their four children had been condemned to over 100 years' imprisonment for various serious offences. An interesting trait in the psychology of the Artenese is their marked religiosity; it may be said of them as of the people of Lozère, that they carry a knife in one hand, a rosary in the other. While criminality is usually only a sporadic phenomenon it is here endemic and contagious, the sphere of the influence of Artena having apparently increased even in recent times. Various causes are here given to explain this curious phenomenon: heredity, isolation, the neighbourhood of forests which facilitate escape, impunity, the stability of the population.

The Psychological Significance of Tattooing.

Tattooing among criminals has excited considerable attention of late years. In a recent number of the "Archivio per l'Antropologia" (Vol. xxii., fasc 2), Prof. Berté has a paper on its psychic significance ("Il Tatuaggio in Sicilia in Rapporto alla Resistenza Psicica"). At Milazzo, in Sicily, tattooing is exclusively practised by the masculine sex, and only during youth. It usually coincides with sexual development; no one is ever tattooed after 20-25 years of age. It is among maritime occupations that tattooing chiefly flourishes. The impulse to tattooing, Dr. Berté considers, is always a momentary whim (*bizzarria momentaria*), favoured by imitation and the prolonged idleness of the sea, the barracks, the prison, and the hospital. The impulse seems to become almost irresistible, as tattooing is often prohibited and sometimes punished by official superiors. It is here compared to sexual aberrations, which the subjects only confess to with shame, and as belonging to a remote past. They always seemed rather ashamed of being tattooed, and wondered why the Professor wished to study "these stupidities." "The psychological cradle of tattooing," Dr. Berté considers, "is constituted by a certain degree of general nervous excitability. In the cases studied by me the phenomenon appears in intimate and constant relation with the psychic resistance of the individual, in the sense that the more excitable the tattooed person, *i.e.*, the less his psychic resistance, the greater was the number and variety of his tattoo-marks." Individuals rich in tattoo-marks were always found to be restless and neurotic when their character and history became known. (In the Italian army, I may mention, tattooed men are found to be frequently insubordinate.) The tattooed criminals examined were found to be individuals with exaggerated excitability, although the mere instinct of imitation is sometimes sufficient. Both in criminals and in non-criminals the phenomenon is the same and may be explained by feeble psychic resistance. Tattooing was studied in Catania and the results reached in Milazzo confirmed. In Catania it was found to be very common, and this fact is associated with the marked religious

fanaticism and superstition (involving psychic weakness) to be found in that town.

It may be added that Dr. Batut, an army surgeon, has recently published a paper of considerable length on tattooing as it exists in France and in Algeria, and also summarises some of the more recent studies of the subject ("Du Tatouage exotique et du tatouage en Europe," "Archives d'Anthropologie Criminelle," Jan., 1893).

3. German Retrospect.

By W. W. IRELAND, M.D.

*On the Amount of Hæmoglobin and Specific Weight of the
Blood in the Insane.*

Dr. Vorster ("Allgemeine Zeitschrift für Psychiatrie," L. Band, 3 and 4 Heft.) details his experiments on the quantity of hæmoglobin and the specific gravity of the blood of the insane. He refers to the previous experiments of Macphail, Smyth, and Winkler, with which his own results are in general agreement. He observes it has been found in ordinary medicine that the appearance of the patient affords no criterion as to the amount of hæmoglobin in the blood. Schmalz found that there was a parallel relation between the quantity of hæmoglobin and the specific gravity of the blood, though not between the specific gravity and the number of the blood corpuscles. Dr. Vorster's experiments were made upon 128 patients, 104 of whom were males and 24 females. He considers the normal specific gravity of the blood to range from 1,055 to 1,062 for males, and from 1,051 to 1,058 for females. Anything under 90 per cent. of the hæmoglobin in males or 85 per cent. in females he holds to be pathological. Vorster's method of research allowed him to experiment on a small quantity of blood.

He used what he calls a capillary pyknometer, in which he took up 0.1 gr., or about two drops of blood. This minute quantity was weighed in a very fine scale, and the specific gravity was obtained by comparing the weight with that of the same quantity of pure water. In ascertaining the amount of hæmoglobin he used Fleischl's hæmometer.

After a laborious inquiry Dr. Vorster arrived at the following results:—

1. The specific gravity of the blood and the amount of hæmoglobin is diminished in states of excitement along with great motor restlessness.

2. When there are symptoms of venous stasis in the course of insanity, especially with patients suffering from melancholia or apathetic dementia, the specific gravity and the quantity of hæmo-

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globin is frequently increased. In such patients, even when they are anæmic, the solid constituents of the blood are sometimes found to be normal.

3. If the specific gravity of the hæmoglobin become lower in the course of the stage of excitement or depression, when the patient begins to recover and the bodily weight again increases the specific gravity and hæmoglobin also increase.

4. Sometimes there is an increase of the specific gravity of the hæmoglobin after epileptic and paralytic attacks.

5. Epileptics who have used the bromides for years have in the blood a higher specific gravity and a greater quantity of hæmoglobin than those epileptics who have not taken much of the bromides.

Dr. Vorster does not think that the increase in the solid constituents of the blood after epileptic fits is owing to motor excitement, for there is a rapid diminution in delirium tremens and general paralysis; nor has he found any relation between the rise of bodily temperature and the increase of the blood constituents. He is inclined to think that this increase is owing to the difficulty of respiration and the cyanosis attending the epileptic attacks.

The Ætiology of General Paralysis.

Dr. Emil Hougberg, assistant physician in the Asylum of Lappvik, near Helsingfors, in Finland, has made an important contribution to the question whether general paralysis is caused by syphilis ("Allgemeine Zeitschrift für Psychiatrie," L. Band, 3 and 4 Heft).

Dr. Hougberg remarks that one group of psychiatric physicians, including most of the French, do not give any high importance to syphilis as a cause of paralytic dementia, laying more stress upon the abuse of alcohol, excess in venery, and injuries to the head.

Dr. Hougberg objects that those who support this view do not take sufficient pains to make sure whether their patients really have had syphilis or not. On the other hand the psychiatric physicians of Scandinavia and Finland hold that general paralysis is a disease entirely caused by an earlier infection of syphilis. The German alienists with Mendel for the most part take a middle position. Though they admit that syphilis is an important factor in the production of so-called paralytic dementia, they do not consider it to be its sole cause.

Dr. Hougberg's own observations were made upon 107 patients, 98 of whom were males and nine females. The details are given at length in a paper of 82 pages. He found syphilis to have been undoubtedly present in 81 per cent. of his cases, and probably so in 11·2 per cent., thus raising the proportion to 92·2 per cent. This is the highest ratio recorded by any observer save Dengler, who found syphilis in 28 out of 30 cases, equal to 93 per cent.

Dr. Hougberg arrived at the following conclusions:—

1. General paralysis is a disease which especially affects the town population of Finland. It does not affect women of the better classes.

2. The importance of syphilis as a factor in progressive paralysis seems to be very great, especially when we consider that venereal disease plays no large part in the causation of other forms of insanity.

3. General paralysis, which comes on most frequently between the ages of 30 and 45 years, makes its appearance from four to five years after the syphilitic infection.

4. The symptoms of constitutional syphilis which precede general paralysis are of a mild character.

5. Compared with syphilis, the other assigned causes, such as hereditary predisposition, affections of the mind, abuse of alcohol, and excess in venery, play but a subordinate part.

6. In paralytic dementia known to have followed syphilis there were no distinctive symptoms from the cases in which syphilis was presumed to be absent. No benefit was derived from anti-syphilitic treatment, nor were any alterations of a specially syphilitic character found on examination *post-mortem*.

Surgical Treatment of Microcephaly.

There are four operations on the heads of microcephales recorded in the "Allgemeine Zeitschrift für Psychiatrie," xlix. Band, 6 Heft, and the "Centralblatt für Nervenheilkunde," Mai, 1894. The first was a male child of eleven months, a microcephale. Size of head not given. No trace of sutures or fontanelles could be felt. He was subject to convulsions, and gave no marks of intelligence. The operation performed by Dr. E. Kurz consisted in removing a strip of bone one centimetre broad and 16 centimetres long. The dura mater was left intact. Eight weeks after the operation, besides healing of the scalp wound, there was complete regeneration of the bone tissue which had been removed, so that the cranium seemed to be equally hard everywhere. The circumference of the head had increased by one centimetre. The convulsions in the limbs were less marked. The facial expression had less of an animal character, and there were some traces of mimicry and voluntary motion.

The "Centralblatt" reports another case of microcephaly operated upon by Professor Gersuny, of Vienna: a child, twelve months old, in whom the fontanelles had closed in the third month. In the fourth epileptic fits began in the left arm and leg, with deviation of the head and eyes to the left. The measurements of the head were:—Circumference, 355 millimetres; from glabella to occipital protuberance, 128 mm.; transverse, 115 mm.

Dr. Gersuny's object was to remove a hoop of bone from the whole circumference of the cranium. To accomplish this bold project he made twelve radiating incisions downwards of six centimetres long, crossing the circular incisions on the skull. The scalp was separated from the bone, and a strip of the cranial wall three millimetres in breadth was removed in two operations. Healing was by the first intention. After three months the depression in the bone could still

be felt. A short time after the operation the epileptic attacks ceased, to appear again in greater number, but after a time they became less severe and less frequent. There was a favourable alteration in the deportment of the child.

At a meeting of the Northern Surgical Society at Copenhagen Akermann reported that he had operated upon a boy two years old. The circumference of the head was forty centimetres. There was atrophy of the optic nerves and epileptic attacks. After the first craniectomy the circumference increased by two centimetres, and the epileptic attacks became less frequent. Ten months later craniectomy was again performed, but without any apparent benefit.

Dr. Tscherning agreed with Bourneville, who holds the operation to be dangerous, and not based upon a proper knowledge of the pathology of microcephaly, as the sutures are frequently found open in the skulls of microcephales. Tscherning performed craniectomy in a boy of fourteen months old, the circumference of whose head was 385 millimetres. The child died nine hours after the operation, with a high bodily temperature. On examination of the brain the central gyri were found atrophied and sclerosed.

In reference to this operation Dr. Jules Voisin tells us in his book entitled "*L'Idiotie*," Paris, 1893, that Dr. Lannelongue has performed craniectomy a score of times. He cut away a strip of the cranial bones longitudinally on both sides, or on one side, without incising the dura mater. The operation was followed by no inflammatory accident, which showed that it could be safely performed with careful antiseptic precautions. But the intellectual improvement so earnestly expected did not come.

A Three Hundred Years History of a German Asylum.

Under the title of "*Die Psychiatrie in Würzburg, von 1583 bis 1893*," we have a history of the Julius Hospital of Würzburg for more than 300 years. The foundation was laid by the Prince Bishop, Julius Echter, on the 12th March, 1576, as an almshouse and hospital. In 1583 the first insane person was admitted. The regulations for nurses throw a gleam of light upon the nature of the treatment given in those days to the insane. She is to have charge of the fetters and foot-irons, and keys of the presses, to take care of the dishes, and to give the lunatics their bread, drink, and food daily. She must try as much as possible to learn their peculiarities, whether they chatter or rage, or rave, and not exasperate them to further anger. She is ordered to bathe them and give them newly-washed clothes, and to spread clean straw in the prison. In winter, "when it is pretty cold," she is to make a "small fire," but care is to be taken not to put clothes or straw near the stove. The first entry by name in the admissions is Erhardus, Count of Mellerstadden, a poor scholar somewhat out of his mind. The first four patients received

are stated to have gone out recovered or improved ; but after studying the records printed, we doubt whether a correct ratio of recoveries and deaths can be made out of them.

In 1590 a woman was received as possessed. Another was exorcised by a priest, but nothing found save natural disease. In 1617 a girl of eight years was brought to the hospital as bewitched. There is a frankness about some of the entries which indicates that the analogue of the superintendent of those days had a mind untroubled by committees. Of one patient, a melancholiac, it is recorded that he was turned out for his insolence. It would appear that some of the patients at least were not detained against their will. Some are noticed as not quite insane, *e.g.*, *melancholicus fere ad insaniam*. Perhaps the chains were used simply as a means of restraint while in the asylum. There are entries of patients escaping with their chains.

In 1617 an inveterate hypochondriac and melancholiac *noluit manere et discessit*; another *abijt sponte*. Escapes seem to have been common during the twelve years beginning in 1600. *Clam abiit* or *furtim discessit* is the laconic entry. In 1628 there were 169 persons in the asylum. In 1631 Würzburg was occupied by the Swedes, who for three years used the hospital for their soldiers. In 1743 a portion of the hospital was assigned for the treatment of lunatics. This establishment has now lasted 150 years. Fifty years ago a psychiatric clinique was begun by Professor Marcus, which has gone on in connection with the famous university of Würzburg ever since.

Sclerosis of Hippocampus in Epilepsy.

Dr. Fischer ("Neurologisches Centralblatt," No. 1, 1893) has carefully studied two cases in which alterations of the hippocampus major was observed in epileptics. The first patient had suffered from fits from his seventh year till he became demented, and died at the age of fifty of phthisis. On examining the brain there was noted an extensive atrophy of the convolutions of the frontal and occipital lobes on both sides. This atrophy, however, was more extensive on the left side, and involved the left cornu ammonis. This supports the view of Wundt, who regards the atrophy and hardening of the hippocampus in epileptics as dependent upon the asymmetrical enlargement of the lateral ventricle. This he regards as the result of the disturbance of the circulation which accompanies all epileptic fits. The left cornu ammonis is more often atrophied than the right. Both are rarely affected at once. The second case described was a weak-minded patient, who suffered from epilepsy from the fourteenth till the twenty-second year of his life. The brain was infiltrated with serous fluid, especially on the left side. There was softening of the left hippocampus. The lateral ventricles were also full of fluid and both of them enlarged; the left ventricle was larger than the right.

Dr. Fischer regards this as a further confirmation of Wundt's views.

Hæmatoma Auris.

Dr. W. P. Tischkow, working in the laboratory of Dr. Mierzejewsky ("Allgemeine Zeitschrift," xlix. Band, 4 Heft), made a study of hæmatoma auris in five cases of general paralysis and one case of hebephrenia. He holds that there are several kinds of swelling of the ears distinguishable from the form peculiar to insanity (othæmatoma verum). Tischkow describes four stages in this affection: The period of effusion of blood, which lasts only some hours; that of absorption, which is often retarded by new effusions of blood; the period of degeneration; and that of contraction of the new deposit attended by contraction of the whole ear. The course of the hæmatoma when treated on the expectant method lasts about six weeks. He considers the appearance of the affection of the ear in general paralysis as a bad symptom. In such cases a remission of the general symptoms is not to be counted on. Tischkow observes that the effusion of blood is preceded by a new growth of vessels, beginning from the perichondrium and invading the body of the cartilage. The giving way of these vessels is the cause of the effusion of blood. The nutrition of the cartilage then becomes affected, the elastic fibres take a dull colour, there is fatty degeneration of the cells, and partial necrosis of the cartilage. As the effused blood lies in the dilated cavity of the cartilage, the conditions are unfavourable to absorption, hence this period lasts long. In two cases of general paralysis Tischkow observed the formation of new vessels without any effusion of blood. In another case he noted the disappearance of the elastic fibres also without any effusion. Tischkow thus considers that the cause of othæmatoma lies in a peculiar affection of the cartilage, which is especially found in general paralysis. The view that the hæmatoma may be caused by external injury he regards as quite unfounded; even as an exciting cause, external injury plays but a small part.

Dr. Pellizzi (quoted in "Neurologisches Centralblatt," No. 14, 1893), in five cases of hæmatoma auris, found a kettencoccus which bears much resemblance to the streptococcus of erysipelas and the streptococcus pyogenius. He was able to cultivate this microbe and to inoculate it on the ear of the rabbit. He considers the disease infectious, and recommends a speedy clearing out of the abscess with antiseptic precautions.

PART IV.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

A Divisional Meeting of the Association in Scotland was held in the Hall of the Faculty of Physicians and Surgeons, Glasgow, on the 8th March, 1894.

Dr. Ireland was called to the chair, on the motion of Dr. Yellowlees. There were also present Drs. Carswell, Campbell Clark, Clouston, D. Fraser, Graham, Havelock, McDowall (Morpeth), Macpherson, Middlemass, Oswald, A. Robertson, Skeen, Turnbull, Urquhart (Secretary), with Mr. Motion, Inspector of Poor, Barony Parish, Glasgow, as guest.

Dr. HAVELOCK (for Dr. Howden) laid on the table the newly-published Pathological Index. He also showed a chair for feeble cases. The mechanism is of a simple character, specially designed for the management of helpless patients. The height can be easily adjusted, and there is little effort required to raise or lower the sitter. It is readily cleaned, and sufficiently heavy to maintain its position on the floor. By adjusting a pivoted wheel, the whole apparatus, together with the patient, can be moved about with great facility. The cost is moderate.

Dr. MIDDLEMASS showed microscopic sections illustrative of cerebral pathology, *e.g.*, arrested development of cells in epileptic idiocy, degenerative lesions of vessels in general paralysis, "spider" cells demonstrated by Golgi's method, etc.

On the motion of the CHAIRMAN, both gentlemen were thanked for their services.

Dr. CARSWELL read a paper entitled "The history of an experiment in dealing with the reported cases of insanity occurring in the Barony Parish, Glasgow." (See p. 394).

Dr. YELLOWLEES expressed his high appreciation of Dr. Carswell's communication, and of the very valuable experiences it detailed. He thought it very remarkable that in only 57 per cent. of the outside cases reported to the inspector of poor as cases of lunacy had it been found necessary to send the patient to the district asylum. The remaining 43 per cent. it had been found practicable to provide for in the preliminary wards, or as private patients elsewhere, or at their homes. The most remarkable part of it all was that none of the cases sent to these preliminary or testing wards had required to be sent on to the asylum. It would seem that these wards were really an asylum for transient attacks of insanity, though unrecognized by Statute. Such supervision of the certification, and such testing of the doubtful cases as had been described, were evidently a great saving to the parish, but the safety and welfare of the patients required to be most carefully guarded. Dr. Carswell had omitted to mention that the benevolent action of the Royal asylums helped to lessen the number of cases sent to the district asylums by receiving patients who had seen better days, at quite unremunerative rates. He (Dr. Yellowlees) had at Gartnavel about 50 patients who paid £30 or under, and who, but for this benevolence, would have been inmates of the district asylums. The difficulties as to certifying senile and imbecile cases for an asylum, to which Dr. Carswell alluded, were what they all experienced, and would be glad to escape if it were possible.

Dr. A. ROBERTSON (Glasgow) referred especially to the cases which came before the inspector as applications. He considered it a happy thought of Dr. Carswell, and very wise of the Barony Board, whose inspector was with them that day, that they should have adopted this method of investigation. It was

of great advantage that there should be medical officers in connection with large districts, with special experience of the insane, to inquire into the applications of alleged lunacy. It was clear from Dr. Carswell's paper that in the Barony Parish, so far as lunacy requiring asylum treatment was concerned, there was no increase. That was a point which had been the subject of great doubt and discussion, and was of very considerable importance. Dr. Robertson's experience did not deal with cases of the kind described, *i.e.*, cases prior to coming into the asylum or the wards of a poorhouse. They had not in his parish—the City Parish of Glasgow—a systematic inquiry carried out by an experienced medical man, or, rather he would put it, the statistics had not been tabulated in the same way as in the Barony Parish; but during the whole period of his connection with the hospital and asylum they had practically had observation wards like those at Barnhill. There were cases sent in of alleged insanity brought before him in the ordinary probationary wards of the poorhouse, and if he thought they were not cases for definite asylum treatment he sent them to the ordinary special wards. It was about thirty years ago since that system came into use. He described the case of a man at present under care, whom he found under much excitement, but could not certify as insane; he also suffered from cardiac disease. That man was sent to the special wards which were in use for the purpose. Again in bronchitis, etc., they sometimes had acute delirium. He had had a case sent in as positive insanity, and upon examination of the patient he was found to be suffering from kidney disease. These were illustrations of one group of cases. Then there were cases from the police offices, picked up on the streets and not very obviously insane; such cases would be sent to these wards for a few days. Again they received from the ordinary wards of the poorhouse patients suffering from various forms of brain decay, who, when they got troublesome, were removed to those special wards, and afterwards when quiet were sent back to the ordinary wards of the establishment. The speaker also stated that he had treated a number of cases of general paralysis in the Royal Infirmary, and referred to one case brought before the Society two years ago in which he established a number of issues on the scalp. That man recovered, so that he was able to work and support his family for four months after he returned home, but afterwards he came back to the asylum worse. Issues were again established over his head in the same way, and he recovered again, but not so well as at the first, and he landed in some poorhouse or asylum. He mentioned that case in passing as one of the class of mental diseases which could sometimes be treated out of an asylum. There was much reason for trying such cases as Dr. Carswell had referred to in these special wards. The patients so treated belonged to the lower section of society; when in the middle and upper classes they would be treated at home. The detention in the wards in Barnhill might be taken to represent a sort of probationary period that often passed in observing and treating cases at home in the middle and upper classes. They could not be treated in the dwellings of the poor. He would like to remark, in conclusion, as to the increase of insanity, that there was a difficulty in our asylums in connection with cases which altered in their character. Perhaps a patient may take a shock of paralysis, may lie always in bed, and be totally different from the phase of insanity present on admission. If they had to certify anew, such a case would not be considered suitable for an asylum. They were unable to dismiss these cases unless they were prepared to say they were mentally cured. If they had an alteration in the law that would enable medical superintendents to say that such a patient requires no more than nursing of a very ordinary character; if they had the power to do so they would be enabled to reduce the number of cases. He had a case just now of a patient who was nearly mindless, very frail, and always in bed. Such a case could be treated perfectly well in a parochial hospital, especially in large cities where the nursing was so much improved. The removal of such cases would free the asylums very much. There should be a system of transfer of sick cases, which could be done without

any disadvantage to the patients, and with advantage to the community in that the number in asylums would be reduced and a saving effected.

Dr. Clouston thought Dr. Carswell was very much to be congratulated in having instituted such an improvement in their lunacy administration, and of having it carried out so successfully. He (Dr. Clouston) had always been interested in hearing something he did not know before of the history of a lunatic. Hitherto they had no facts regarding the procedures taken to investigate the insanity of a patient and bring it to the knowledge of the public authorities before he was certified, in any definite statistical fashion. There were two points of interest in Dr. Carswell's paper—(1) the addition to the administration of lunacy in our large parishes, and (2) the addition to their scientific knowledge of the increase or non-increase of lunacy. Dr. Carswell had clearly proved that while there was a large addition in the number of applications in his parish, the certified cases of lunacy had really not increased in proportion to the population, and that what increase there was had taken place in the slighter cases only. Every asylum superintendent has had experience of the case who gets at once quite rid of the worst forms of his malady, and therefore would not have been included in the Blue Books of insanity if he could have hired an attendant and been treated in private lodgings for a certain time. Probably we are to have an evolution in the matter of special hospitals, but whether we are to have them so large as to accommodate 300, as Dr. Carswell indicates, he was doubtful. It seemed to him that each parish would be better to have an hospital for themselves, and the smaller the better. He was not quite certain that he agreed with Dr. Carswell that the unit of a parish is necessarily better than the unit of a district, but we shall now see how the Glasgow arrangement works. We shall now see how the Glasgow parishes undertake the management of an asylum. It is an addition to the work of local government, and we are looking with great interest to the way in which the Glasgow parishes arrange this addition to their ordinary parochial work; whether the philanthropic side is going to be incorporated into their ordinary business work, and whether they will be successful. If the insane are to be worse off, there will be a public reaction. You have a large number of persons that the Parochial Boards have to deal with who ought not to be treated with very special sympathy, as it would do them a great deal of harm. What was the proportion of recoveries of those sent to Barnhill?

Dr. CARSWELL—I cannot give you these figures. I expected Dr. Core, the Medical Officer of the Poorhouse, would have been present to-day to give information on such points, but I may say we treat the cases there until they are dismissed recovered, or handed over to their friends.

Dr. CLOUSTON—Another question. What percentage is clearly unsuited for treatment? He was struck with what was stated regarding the greater facilities for people going to the Parochial Board and Charitable Institutions asking relief. There were 18½ per cent. of the insane in Scotland in private dwellings, 10 per cent. in England, and only four per cent. in Ireland. One would very much like to know also the average cost of patients in Barnhill, compared with the cost in Lenzie. Are the cases from the police offices sent to Barnhill or Lenzie? In Edinburgh every insane case in the police office comes at once to Morningside.

Dr. CLARK, Bothwell, thought if they had the experience of other large parishes they might be able better to compare results with the Barony Parish. For some years he had taken a census of admissions, and he found there had been no increase. He considered that if the facilities at asylums were increased, the admissions were increased. Inspectors knew there was a difficulty in getting patients admitted to his asylum at present, and they thought twice before having them certified. In one case he got three telegrams asking if a certain patient could be admitted, but he was never sent, and he was afterwards told that the medical officers did not think it advisable to send him. He was

not in any way disparaging the remarks of Dr. Carswell : his paper was most important, because Dr. Carswell has a skilled knowledge and is appointed for this special purpose, and is more likely to examine each case with the view to its being sent either to the asylum or special wards. The senile cases are those that one wants to get rid of. Dr. Carswell referred to an hospital for the three parishes of Glasgow, but he was at a loss to know his object, because in the Gartloch and Hawkhead Asylums, hospitals are being provided, and he would like to know also how these could be better arranged. There is also a difference in the cost of maintenance, and he thought the patients of the poorer classes should be placed on the same level as the better class in being treated where possible in their own homes.

Dr. WATSON considered that the Parochial Boards were fully alive to treating the insane in the most humane manner. He had great sympathy with the outdoor medical officers; he had been one himself. They had great difficulties in diagnosing cases of insanity when pressed for time, and when they must decide at once how to act. Little wonder then that they frequently preferred to take the safe course and send the patient to the asylum. In Govan they frequently got cases sent down marked "doubtful." In such cases he often sent the patient to the hospital wards. He had at that moment two general paralytics who were being treated in the hospital wards, and the probability was that they would die, and never be classed as lunatics at all.

Dr. GRAHAM said this provision of the Parochial Board was a wise provision for reducing the number of certified cases of lunacy under certain conditions, that the period of residence should not exceed one month. With regard to the difficulty in the smaller parishes, the most of them were connected with combination poorhouses, so that they might act in the same way as the large parishes. The speaker might place a patient in a single room if necessary, and in a few days he could be transferred to the ordinary wards or leave if desired. It was a great question the treatment of lunacy by Parochial Boards, and he thought their motto was, "Secure the approbation of the Commissioner in Lunacy," and they had provided in their Parochial Asylums about as comfortable furnishings as in other asylums in the country.

Dr. FRASER was in a difficulty from what he had gathered as to the evolution which had been spoken about. He would like to bring the evolution more in the direction of the ordinary hospital, still leaving acute cases to the asylums. He agreed about the obloquy attaching to the treatment of acute mental disease in asylums, and was not sure that this movement would help to overcome this. If they could break down the public prejudice against asylums they would do a great thing indeed, and this might be done by continuing to treat such cases more on the lines of a general hospital.

Dr. McDOWALL asked if during the four years there had been any casualties which might not have occurred had the patients been sent to an ordinary asylum? He cordially sympathized with the view as to the equipment of a general hospital for the treatment of every kind of case that could occur, in place of sending them to an asylum. But these curative asylums would be a great curse if they were obliged to treat chronic cases as well. There is, however, another matter. We all look upon the helpless class of cases, such as idiots, as a great trial of our lives, but think of what a house was like when the accommodation was small, the people poor, with their living to work for, having a case of this kind. He remembered the case of an idiot boy who was a curse to all the people in the house. The daughters were becoming hysterical because they were losing their sleep owing to his behaviour, yet the parochial authorities refused to send him to an asylum. He knew that in many hospitals such a case would be out of place, and quite rightly, but he rather agreed with the "Leader" that people should be relieved from having such a terrible curse living in their homes.

Dr. URQUHART said that it had given him very great pleasure to learn the

details of this valuable and momentous experiment, as related by Dr. Carswell. No doubt it was a project requiring the most anxious care, but the Barony Parish had been exceptionally fortunate in securing the services of a physician who had ample experience in the treatment of mental diseases. He gathered that this was quite a different system from that which had obtained in former days. It was the sorting out of evanescent insanities, trivial cases, and such as might be otherwise more appropriately cared for than by sending them direct to Lenzie. It was not the faulty system of which he had had experience in a Metropolitan workhouse, where the insane were kept indefinitely and most inadequately attended to. That had been subject of complaint over and over again by English superintendents, and it was one of the best features of Scottish Lunacy Law that patients did not filter through the poorhouse to the asylum, but on the contrary only those cases suitable for the circumstances of poorhouse treatment were permitted to be transferred thither. He had repeatedly spoken and written on this subject—the necessity for reception-houses for insane patients, especially in the centres of densest population. A small well-equipped hospital for the detention of doubtful cases would be of the highest value in such a city as Glasgow. Dr. Norton-Manning had, long years ago, shown them this more excellent way. In a convenient part of Sydney a suitable building was erected, and all doubtful cases, alcoholics, etc., were sent there for due observation and treatment before being removed to the ordinary asylums of Gladesville and Paramatta. It was a benefit all round, and it was extraordinary that we still lagged so far behind. He would, however, venture to predict that Glasgow would not remain content with the tentative measures now adopted, but would develop the idea on the grounds so ably stated by Dr. Carswell. He would not detain the meeting with recapitulating what he had lately published elucidative of German opinion on this subject, further than to again advocate the treatment of all neuroses on the same general principles. He would not divorce in treatment the ordinary forms of insanity from such maladies as delirium tremens, and he would expect that the poorest classes would, in such a reception-house, obtain benefits now enjoyed only by the richest. He would like to refer for a moment to the routine of this work in Paris. At the central police office there is a special infirmary, practically detached from the main building. To it are brought all the police cases suspected of insanity, and under the able control of Dr. Garnier they are daily classified and dealt with. Most are diagnosed and provided for by removal to the various asylums without delay, but a few are detained for observation and consideration. In the course of the day following their apprehension the undoubted cases of insanity of an acute type are nearly all to be seen in the reception-house at St. Anne's. That is a great establishment in the immediate neighbourhood of Paris, and consists of three main buildings—the reception-wards, under the care of Dr. Magnan; the clinique, lately under the care of their lamented friend Professor Ball; and the ordinary wards for male and female cases, where the great majority is housed. He might say in passing that the clinique, with some 60 beds, is occupied by such cases as the Professor may cull from the rest of the establishment for teaching purposes, while the reception-wards are about twice that size, and occupied almost entirely by recent cases. It would be seen that such an arrangement was certainly preferable to the haphazard methods of this country, although open to the objections that it savoured too much of police interference, and did not discriminate sufficiently between the asylum and the reception-house. He would prefer the latter to be a separate and distinct establishment—an hospital rather than an asylum. Of course the statistics of such a place would not be comparable with the usual asylum returns—indeed, it would be an additional factor in depreciating their recovery-rate. But he would not trespass on the time of the members with the illusions of statistics, nor would he speak at length of apparent difficulties from a legal point of view. The law seemed to have provided for Dr. Carswell's purposes, and the policy of the General Board of Lunacy in developing this most

reasonable project must commend itself to every member of the Association. There might be a chance of unsuitable cases being sent, a chance of undue detention, a chance of improper treatment; but the obvious remedy for these possible evils was to retain the responsibility in skilled and efficient hands, and to separate these observation-wards as effectually from the poorhouse as from the asylum.

The CHAIRMAN deprecated going to Parliament for increased powers as had been suggested, because when they went to the House of Commons the medical profession was generally shackled with increased responsibilities, and he thought they should rather go upon common law and common sense. Accordingly he advised them to work with the goodwill of the public and the support of the profession as the law at present exists. In referring to the rates charged at Larbert when he was there, he found that they could keep a case at about £23 yearly, but they charged £30 for a boarder, and the profit went to the fund for election cases, which in another way relieved the public rates.

Mr. JAS. R. MORTON, Acting Inspector, Barony Parish, being invited to address the meeting, expressed his pleasure in being present. Referring to certain points in the discussion, he mentioned that several years ago, in the seventies, an Adjustment Committee, consisting of representatives of the three city parishes of Glasgow, had been constituted, and that an arrangement had then been made with the police that the Inspector of Poor of the parish in which any alleged lunatic had been found should at once receive intimation, and since then they had no Fiscal cases. These cases generally cost the parish from £15 to £17 each in expenses, but now through the good feeling existing between the police and the parochial authorities, immediately on receipt of a telephone message Dr. Carswell was informed, and, with an Assistant Inspector, attended to the case, and on being certified the patient was taken either to the poorhouse or asylum. The medical officer of the poorhouse, who had opportunities for wrecking the scheme if he chose, had, with the governor of the poorhouse, endeavoured to assist Dr. Carswell and himself in dealing with such cases as were sent to Barnhill for treatment. At present he had two cases requiring to be disposed of after being treated there. The original cause of the movement in the matter was a complaint by himself at the number of delirium tremens cases sent to the asylum, where they seemed to remain. As to the constitution and management of Parochial Boards, whatever their defects, no one could question their philanthropic efforts all along the line, more particularly in the large cities and provincial towns, in the care of orphan and deserted children, and in the care and treatment of the sick. Barony had been the first parish in Scotland to introduce the system of trained sick nursing in poorhouses, but things were going such a length that probably there would be a reaction some day—at least, that was his humble opinion. He ought to mention also that they had at Barnhill a trained male nurse, who, in addition to his special work, had charge of the outdoor labour and turn-out cases. The turn-out class were those nearly able-bodied, who were generally loafers. As to the rate per head for asylum cases, it was from 8s. to 8s. 9d. per week exclusive of rent, and for poorhouse cases 5s. 10d. per week. He had heard before of the imbecile alluded to by Dr. McDowall, but he thought the case must have occurred in the Highlands, because no parish in the South would have so acted. Every case was fully gone into, and the whole circumstances taken into account, but there was also another side to the question. He had a case recently where the income of the family was over £3 per week. The father on being asked how much he was prepared to pay for his son in the asylum, answered that “he thoct he might be able to gie 2s. 6d. a week.” This man was being pressed to give 5s. per week, and if he refused he would be brought before the Sheriff. Some thought all they had to do was to apply to the parish, and the number of applications for relief from the rates was getting serious.

Dr. CARSWELL, in closing the discussion, thanked the members for the

generous way in which his paper had been received. While many points had been raised upon which he would have liked to dwell, he had only time to answer questions. Dr. McDowall had asked if there were casualties. There was one, and it happened at the time Sir Arthur Mitchell and Dr. Sibbald were visiting at Barnhill. They saw the man, whose case had developed and become maniacal, and he put his hand through a window. Sir Arthur asked if he considered the accident told against his scheme, but he replied that he hoped Sir Arthur did not think so, as it was an accident which could just as easily have happened in the asylum. Dr. Urquhart feared that unsuitable cases might be sent to Barnhill. He would just remind him that a very definite certificate had to be filled up in every case, and every case had to be diagnosed. Dr. Carswell concluded by giving two illustrative cases which had been treated, one in Barnhill and the other at the patient's home.

In consequence of the lateness of the hour the other papers on the agenda were deferred until a future meeting.

Dr. CARLYLE JOHNSTONE moved, "That it be a recommendation to the Council that all examination papers set for Association purposes should be printed in the Journal."

The motion was supported by Dr. TURNBULL, and agreed to *nem. con.*

Dr. URQUHART made a statement regarding the Royal National Pension Fund for Nurses and its apparent suitability to the circumstances of Scottish asylums. He moved for the appointment of a small committee to consider the possibility of joint action on the part of the Scottish asylums in order to provide for aged and infirm officials.

The motion was adopted, having been seconded by Dr. CAMPBELL CLARK, and the following committee was named with instructions to report to a future meeting, viz., Dr. Watson, Dr. Clark, and Dr. Urquhart.

After the meeting the members dined at the Windsor Hotel.

MARIANO WILLIAMS v. BEAUMONT & DUKE.—JUDGMENT.*

Following is a verbatim report of the judgment of Mr. Justice Wills and Mr. Justice Collins, sitting as a divisional court, on Thursday, May 24th, in the Queen's Bench Division.

Mr. Justice Wills said—We have listened with very great care to every word of these arguments, because the points which are raised are very important, but we have come to the conclusion that the application to stay this action ought to succeed. The Court is very much embarrassed indeed by the nature of the pleadings, and the particulars, more especially the particulars which are drawn without the slightest reference to the subject matter of complaint of which they profess to be particulars, and which diverge into a great variety of matters which have nothing whatever to do with the paragraphs in the statement of claim, and one would almost suppose that they were drawn by the plaintiff himself. The complaint, however, as formulated in the statement of claim, consists of two portions, one of which complains of a proceeding taken under the Lunacy Act, and the acts done in discharge of the duty cast upon the defendants, who certified the alleged lunatic under the Lunacy Act, and the other relates to matters which are unconnected with the Lunacy Act. I will deal with these separately. I may also say that a very large portion of the particulars which are given with respect to a paragraph which alleges a detention by the defendants, which has nothing to do with the Lunacy Act, two-thirds of the particulars at least are occupied with a variety of matters which, if they existed at all, are complaints that the defendants did something wrong in the course of the performance of the duty cast upon them, or upon one of

* This trial is of so much importance that we give the judgment in full.—Eds.

them, under the Lunacy Act. Now very different considerations apply to the two sets of charges, because under the Lunacy Act it is our duty to stay this action, so far as it relates to matters connected with the discharge of a duty under the Lunacy Act, if we are satisfied there was no reasonable ground for alleging that there was either want of good faith, or want of reasonable care, in the proceedings on the part of the defendants, and being satisfied, for reasons which I will state presently, that there was no such want, either of good faith or of reasonable care, it is our duty to stay this action so far as it relates to those subject matters. I will proceed to deal with that question, and with that part of the matter, and exhaust it before I come to what I may call the Common Law part of the case. Now I may say at the outset that I do not propose to discuss the question as to what the foundation of this action is, or whether in its nature it will lie. We have had no assistance from the learned counsel on that important part of the matter. We endeavoured yesterday to get such assistance, but we could get none, and we asked in vain to have it pointed out what particular statutory duty, if the action was founded on a breach of a statutory duty, was relied on, or what the foundations of that particular duty, which is alleged to have been violated, rested upon; and however eloquently we may be addressed in general terms as to want of reasonable care, and so on, it is absolutely necessary in a matter of this kind to be a little more definite, and to see, before we decide that an action will lie, what the alleged foundations are. I do not propose to discuss that question. I only propose to guard myself against being supposed, by the nature of the judgment which I am going to pronounce, to give any foundation, or any colour, to the notion that an action of this kind will necessarily lie, especially with regard to the part of the case which relates to what I will call the Common Law claim, set up in the statement of claim. The medical officer is the servant of the Guardians; he is not, as far as I can see, a person constituted with a specific duty towards the persons under his charge, but his duty is a statutable duty as far as it rests upon the Statute. It is a duty to those who employ him. If that be the true nature of his position, an action, if it would lie at all, would lie against the masters, and not against the servant, and would lie against the Guardians, or whoever appointed him. I do not decide this. I only wish to point out that the matter is of extreme consequence, because if a medical officer of a Union is to be exposed to an action at the suit of every inmate of a workhouse who chooses to fancy that he has not been treated with adequate skill (and generally, or very often, people of this class take very exaggerated notions), if an action is to lie at his suit, especially on the allegation that the medical officer has not treated him with proper skill, and with proper attention, it would be impossible to get any gentlemen of position or character to hold the office, and great mischief would be done to those who are to be served by such medical officers, as well as to the medical officers themselves. I cannot see myself, if such an action will lie, why in the case of a prisoner convicted of misdemeanour (and I say misdemeanour in order to avoid the possibility of an argument that a person convicted of felony is deprived of civil rights), why every person convicted of a misdemeanour should not have an action against the gaol surgeon, because he thinks the gaol surgeon has not treated him with proper attention or with adequate skill. Therefore the proposition contended for by Mr. Herbert Smith is one of very alarming magnitude, which, if it could be established, would be fraught with exceedingly serious and lamentable consequences. But it seems to me unnecessary to discuss this matter, because it seems to me that there is a complete justification for the application which is made to us, assuming that the action is maintainable in its nature and character. Now I proceed to deal first with these matters which arise under the Lunacy Act. In the first place, what are the complaints which are made? In the statement of claim, they are, that the defendants wrongfully and improperly and without reasonable care, and without making any proper enquiries, agreed together to certify the plaintiff to be a lunatic, and thereupon

illegally and improperly confined and imprisoned him in the said workhouse or its precincts as a pauper lunatic until his removal therefrom on the 20th of October. Now, in substance, the charge there is that of improperly signing a certificate which was signed by one of them and not by the other. I cannot see myself how the other can be made legally responsible for the act of his colleague in signing a certificate even if there was anything wrong in it. All that appears was that he gave him the benefit of his advice, and if an action such as this would lie, no medical man would venture to go and talk over with his colleague the bearings of the information received, and the facts which had been observed, in a case like this. But granting, for the sake of argument, that the claim properly applies to both of them equally, the protection must apply to both of them. The paragraph goes on to assert that they confined or imprisoned him in the workhouse; as far as that is concerned, it seems to me a mere flourish. We have had the facts most elaborately alleged in the very voluminous affidavits, every word of which I have read, and read carefully, in which no pains have been spared to say everything that could possibly be said against these gentlemen, and there is no trace of their having interfered in any way, or done anything except by having signed their certificate, and having, when the plaintiff applied for admission, probably (although that is not stated) indicated their opinion that the part of the workhouse where he should be placed would be the lunatic ward. The subject, therefore, of the complaint is that of improperly signing the certificate. There is no trace in the evidence, and there is no allegation in the affidavit—and I am quite sure the plaintiff has put his best leg foremost—that they did anything more than in the ordinary course of business indicate their opinion that the man was of unsound mind; the rest was a mere matter of routine, which would follow, as a matter of course, for which they were not responsible. If there is anything wrong it is the master of the workhouse, or the guardians, who are responsible, and certainly not the defendants. Now the next part which relates to the lunacy matter is paragraph four, which says that one of the defendants, Mr. Beaumont, wrongfully, and with the consent and knowledge of the other defendant, signed a medical certificate under the provisions of the Lunacy Act, 1890, alleging that the plaintiff was a person of unsound mind. In substance it is the same thing as has gone before. The rest of the statement of claim which follows is a mere allegation of consequences which ensued from signing the certificate. Therefore, so far as the statement of claim was concerned, and so far as that portion of it is concerned which alleges mistaken or erroneous conduct under the Lunacy Act, it relates to the signing of the certificate. There is a part of that paragraph three which relates to a totally different matter, a matter for which the defendants appear to me in no sense responsible, namely, for the plaintiff's detention in the workhouse during the period which elapsed between his admission and his removal to the asylum. When ordered to give particulars under that paragraph, a great number of particulars have been given, most of which have nothing to do with it at all. The first states that they did not examine him in a proper manner, that they put him under examination for too long. It is now said it was too short. One complaint which is made to-day is that the examination of an hour and a quarter was too cursory. Under their particulars it was alleged that it was too long. Then they say that there was so little skill displayed as not to have discovered that he had heart disease, and so on, and a number of other things which have absolutely nothing to do with it—the confinement in the workhouse between the period of his examination and the period of his removal to the lunatic asylum. It then goes on with regard to one of them, Mr. Duke, that he relied exclusively on the statements of Mr. Beaumont as to the plaintiff. That again has nothing to do with negligent treatment by medical men, as medical men, while he was in the workhouse. All that ought to have been struck out as being an abuse of the privilege given to him to deliver particulars under paragraph three. Then he goes on to say as against both de-

fendants that they made no inquiries of the plaintiff's friends except Mrs. Williams, that they made no inquiries to test the credibility of Mrs. Williams' statement, and then it goes on to allege that the doctor did not supply him with adequate diet and nursing suitable to his condition within a reasonable time, and did not ascertain whether any special diet was ever supplied or given to him. Paragraph four says they did not visit him with sufficient frequency and ascertain his true physical condition, and so on. Those two may be particulars under paragraph three, and I will deal with them presently. But the fifth paragraph is: "In keeping the plaintiff in the receiving ward of the workhouse until 4.50 p.m. on Monday, 16th of October, 1893, without any care or attention, and in then removing him to the lunatic ward." That really again has nothing to do with paragraph three; and paragraph six, as to not ascertaining whether he was fit to be removed, is the same. Paragraph seven is not being properly acquainted with the provisions of the Lunacy Act. That is a very wide subject of complaint, and one which has absolutely nothing whatever to do with the paragraph under which it is given. Now, treating all those matters which I have so particularized as constituting an alleged cause of action, although I do not think they ought to be so treated, because nothing can be more embarrassing, either for the court or for the defendants, than such a mode of dealing with the same, but assuming all those to be stated as specific causes of action, they are all matters which relate to the performance of the duty of the medical officer under the Lunacy Act, and, therefore, they are all governed by this question of whether we see there are any reasonable grounds for alleging want of *bond fides* and want of reasonable care. I now proceed to say why I think there is no ground whatever for alleging either of those matters. First as to good faith. It has not been questioned, there is not a single fact that can be pointed to which has the slightest tendency to indicate that there was any want of good faith. If there was no want of good faith it carries us a very long way towards the solution of the next question, namely, whether there was want of reasonable care. Of course if there had been any want of good faith it would be more likely that there would be a want of care in the proceedings of these gentlemen, but as it seems to me their proceedings were marked by humanity and by deliberation, and anything but a hasty or impatient consideration of the case. Mr. Lockwood has just said that we ought to infer want of reasonable care on the part of these gentlemen, because whether the patient was admitted into the asylum three or four days later, under the order of the Justices, he was found to be perfectly in his right mind. Mr. Lockwood, I have no doubt, with his enormous and varied avocations, is not likely to have had either the time or the patience to read the affidavits with that care which it has been my duty to bestow upon them, or he would have found out in the inquiry which took place before the Local Government inspector, the doctors, who, in the asylum, came to the conclusion that there was nothing the matter with his mind at all, said that it was perfectly consistent with that at the time the certificate was given, which was on the 16th of October, he should have been perfectly properly certified. The patient was suffering from alcoholism, there is no doubt about that. It has not been controverted; it is alleged in the document, not in the certificate, but in the particulars attached to the order. The sister-in-law, Mrs. Williams, stated before the inspector that he was a man given to drink, and suffering much from drink, and it is notorious that persons who are in a great state of depression at one moment from alcoholism may well be in a condition in which they may be properly described as being unable to take care of themselves, if not of unsound mind, especially after long exposure to weather and distress, such as this man had suffered just before he was admitted into the workhouse, when, under more favourable conditions, they would recover oftentimes very rapidly. I cannot see that, because three or four days after the certificate was given, this man was free from such symptoms, that we are to disregard the evidence of what took place when he was admitted, and come to the

conclusion that the doctors must necessarily have acted without proper care in coming to the conclusion which they then did. Now, he being in this condition was examined. There is no complaint that the regular course of procedure indicated by the Act (I mean the general course of procedure) was not followed, except with regard to one matter which has nothing to do with what I am now dealing with. One of these gentlemen appears to have been properly called in by the Justice of the Peace, to whom this matter was referred, and the Justice of the Peace so certifies in his certificate, and in pursuance of the direction from the Justice of the Peace Mr. Beaumont made his examination. Now, the Act provides that the statements which are contained in the certificate by a doctor shall be taken as if they are statements made on oath for the purpose of evidence. Therefore we have that which is equivalent to the oath of Mr. Beaumont that the man was very depressed, that he said he had nothing to live for, that self-destruction always haunts him, that he has impulses to destroy himself, and he states all people are against him, and make remarks about him in the street. It is also true and an undoubted fact that this man sent for his sister-in-law, and sent to her by a letter which indicates that he was on extremely friendly terms with her. The letter begins "Dearest Bec," and he writes in affectionate terms evidencing confidence in her. That being the state of relations between the parties at the time the certificate was given, she was seen by the doctor, and she said that he had threatened to murder her, and several times threatened self-destruction. Now, it is said that we are to consider that there was reasonable ground in alleging that there was want of proper care in accepting that statement because the plaintiff denies it. There is no statement of Mrs. Williams, who does not appear to have been at all unfriendly to him, when she was called before the inspector; Mrs. Williams does not deny it, and it is obvious that it is perfectly true that she had said so. We have no reason whatever to suspect that Mrs. Williams was anything but a good and affectionate friend to this man. He had been living in Mrs. Williams' house for a considerable time, and she was the person with whom he had last lived before his admission into the workhouse. It must be remembered that in matters of this kind prompt action is necessary. It is very often necessary, and certainly necessary in the case of a suicidal man, and I cannot conceive that there is any want of reasonable care, or any reasonable ground for alleging want of reasonable care, in the fact that a doctor who had observed Williams himself, and received this information from Mrs. Williams, himself acted upon it, and took it as the groundwork for giving his certificate. It was said that the doctor ought to have made a sort of almost judicial investigation, that he ought to have written to this man, that man, and the other man, and Mr. Herbert Smith even went so far as to suggest that he should have written to the father, with whom the man had not been living, to correct the information he had received from Mrs. Williams that he had threatened to kill her when she had been living with him, and when the statement had been made to her. That only shows that when people get an idea into their heads that they have been ill-treated, how every act, of the simplest and most *bond fide* character, may be tortured into evidence of want of *bond fides* and want of reasonable care. I do not propose to go further into this question of evidence now, excepting to say that, having read the affidavits from beginning to end with the utmost possible care, I am satisfied, satisfied from the tone of the plaintiff's own evidence, and from the tone of his solicitor's affidavit, that there is a disposition to make the worst of everything—that the plaintiff's statements are not those upon which one can place implicit reliance, or any great reliance. I should be exceedingly sorry to come to the conclusion (although I should do it if it were necessary, and I was satisfied that it was a right conclusion) upon a matter of this kind at variance with that which was come to by the Local Government Board after an investigation which lasted twelve days, and upon a report of the inspector who had had the infinite advantage, which we have not had, or hearing these people, seeing them, and

seeing what sort of impression their manner and character created, and upon whose report the Board have satisfied themselves, and have come to the conclusion and reported that these gentlemen acted with due care, with proper professional skill, and with humanity and good faith. I have come, independently and with much less satisfactory materials to judge from, to the same conclusion, and, therefore, I think that, so far as this is an action relating to a matter under the Lunacy Act, it ought to be stayed. Now, there remains the portion of the action, which is comprised in paragraph three, which says that while the plaintiff was so wrongfully and improperly imprisoned, that is to say, after he was transferred to the lunatic ward, and confined in the said workhouse and its precincts, the defendants in their capacity as medical officers of the said workhouse acted negligently and improperly towards him, and did not give him due and proper care and attention. Now, that is not a charge of having detained him, and there is no foundation for such a charge. It is no use putting statements of this kind into a statement of claim when we know now that there is absolutely no foundation for them. The defendants never, either of them, detained him, they gave their certificate, they made their medical examination, and they expressed their opinion. The authorities detained him, and not they, and if the man did not receive proper diet and proper medical comforts, it is clear from the affidavits, and from the report of the Local Government Board, that that is the act of the people in the workhouse and not of these gentlemen. The Medical Officers of Health do not feed the paupers. The medical officers of the union do not feed the inmates of the workhouse. It is not their duty to do so. As for the complaint that they had not discovered that proper attention was not being paid to their orders, the plaintiff himself does not allege that he ever complained to them that anything of the kind had taken place, and if he did not complain I should like to know how they were to know it. The complaint therefore is one of a general want of careful medical skill and attention during the time he was in the workhouse. I have already expressed my opinion that it would be a most alarming thing to lay down that such an action would be maintainable in its nature, but, assuming it to be maintainable in its nature, there must be some grounds for it, and something beyond mere allegation, and when the matter is now before us on affidavit the whole circumstances, and everything that could be possibly said by the plaintiff has been argued and stated in his affidavits. I am bound to say I can find no fact whatever which indicates anything of the kind. It seems to me that this part of the action ought to be stayed under the inherent jurisdiction of the Court to prevent a gross and really cruel abuse of its process. These gentlemen, who seem to me to have done their duty in a very difficult matter with care, skill, and humanity, are now to be ruined by an action of this kind taken by a person who was admittedly (and does not deny it) in a state brought about by his own intemperate habits in which he might very well be mistaken, by persons much more skilled in matters of this kind than the defendants were likely to be, for a person of unsound mind, which, fortunately, he turns out now not to be. I have no hesitation in coming to the conclusion that this action ought to be stayed, both as to one part and as to the other.

Mr. Justice Collins—I am of the same opinion, and as we are differing from the learned Judge in the court below, I will add a few words. I find on the statement of claim three causes of action. They are not very scientifically alleged, but I think that on analysis you can extract at all events an intention on the part of the pleader to set out three causes of action. The second paragraph states that the defendants illegally and improperly confined and imprisoned the plaintiff. That is an action of trespass. He also says, looking partly to the second paragraph and partly to the fourth and others, the defendants wrongfully and improperly signed a medical certificate under the Lunacy Act. That is a cause of action under the Lunacy Act. Then there is also another charge that during the time when this person was confined in the

asylum they failed to give him that degree of attention which he thought fitting and desirable. Those are the three causes of action. Now Mr. Justice Kennedy, as far as I can gather from the statement of the learned counsel, does not appear to have had much doubt as to the cause of action under the Lunacy Act. I gather that his opinion there was the same as that at which we now arrive, that the plaintiff had not shown reasonable ground for alleging want of good faith or reasonable care. Now his difficulty seems rather to have arisen on what may be called the Common Law part of the case, therefore I will deal with that first. Now as to what may be called the Common Law part of the case, it is, as I have said, trespass and want of care in looking after the plaintiff when he was in the pauper ward. As to this trespass there is absolutely no evidence whatever of anything like trespass on the part of the defendants, therefore we have clear power to strike that claim out as far as it rests upon that. Then as to the second suggestion, namely, that these gentlemen acted negligently and improperly towards the plaintiff and did not give him due care and attention; I asked in vain Mr. Herbert Smith to point out the legal foundation of that duty, and I am bound to say that Mr. Herbert Smith has not relieved my difficulty on that part of the case. There is nothing on the face of the statement, and that is all that I have to go upon in the matter, for it certainly states up to the high water mark everything that is alleged in the particulars. I find nothing approximating to any suggestion of misfeasance on the parts of these officers. I find a suggestion of negligence, the pith of which is stated in the two last lines, namely, that they did not give him due and proper care and attention. It is not necessary to decide that point, but I certainly do not wish to be taken as now forming an opinion that an action will lie at the suit of any pauper against the person who happens to be a medical officer employed under the Poor Law Acts who thinks that more skill and attention ought to have been given them by the medical officer. The cause of action there is that the officer did not give him due and proper care and attention. In other words, if the pauper, feeling himself ill, was not visited by the doctor, from this statement of claim it would appear that an action would lie against him, but I guard myself against expressing any opinion that such an action could be maintained. No doubt where a medical man is paid by one person to give advice to another that other person can maintain an action for misfeasance. That was decided in the case of *Gladwell v. Skeggall* in 5 Bingham's New Cases, page 733. Whether short of misfeasance he can maintain an action for mere negligence is another matter upon which I pronounce no opinion. So much for the Common Law aspect of this case. There is no foundation in fact for the first suggestion of imprisonment, and if there is no foundation in law there is certainly no foundation in fact of alleged negligence on the second head. Now I come to the question under the Lunacy Act. There does not appear to be sufficient allegation on the face of the claim to found a cause of action. There, to a certain extent, the difficulty that was felt as to the Common Law duty is met by the Lunacy Laws, because the Lunacy Law, as interpreted by Mr. Justice Crompton in the case of *Hall v. Semple* (and I do not think there is any difference as to this particular part of the case between the two Acts), is that the effect of the Lunacy Law is to cast the duty direct upon the doctor who examines the patient—to create a direct duty between the one and the other, and that therefore the doctor who fails in the discharge of his duty is liable to an action at the suit of the person who is examined. But the measure of the breach of that duty, according to Mr. Justice Crompton, is culpable negligence. He expressly lays down that nothing short of culpable negligence will, under those circumstances, make the doctor responsible. He does seem to draw a distinction between a malicious act and culpable negligence, but at the same time he says it is no mere ordinary negligence—it must be something more than ordinary negligence—although it falls short of malice in order to found liability. Now judging this case on the facts presented to us in the particulars,

and in the affidavits, is there any shadow of foundation for saying that there is anything like culpable negligence in this case? I cannot find any suggestion of it. On the contrary, so far as we have materials for doing it, I see less than no reason for differing from the report of the Inspector, but on the other hand I am prepared to endorse it. It seems to me upon the evidence before us that these gentlemen used great care, and, according to the best of their ability, discharged their duty in giving an opinion, which they thought was a sound opinion, which may or may not in fact (I do not know) at the time they gave it have been a true opinion. Under those circumstances the Act warrants us and obliges us at the instance of the defendants to put an end to the case, because we are bound to do so if the Court or a Judge is satisfied that there is no reasonable ground for alleging want of good faith or reasonable care. We have had the assistance of the report of the Inspector who had the advantages pointed out by my brother, and I can see no reason whatever for differing from him; therefore, I entirely concur that, as to all points, this action should be dismissed.

Mr. Justice Wills—I should like to add that one reason with me for giving considerable weight to the opinion of the Local Government Board in this matter is that every line of this report appears to me to indicate the perfect judicial impartiality with which it is framed and constituted from beginning to end.

Mr. Herbert Smith—I hope your lordships understand that I make no charge against the Inspector of any improper conduct.

Mr. Justice Wills—I did not suggest that you did; I only say that I think it right on public grounds to say that that is one reason why I have paid attention to it.

Mr. Frank Dodd—Then, my lords, the appeal will be allowed, and the action dismissed with costs.

Mr. Justice Wills—Yes.

Mr. Lockwood, Q.C., M.P., and Dr. C. Herbert Smith were for the plaintiff; and Mr. Frank Dodd (who was instructed by Mr. Thomas J. Fisher, 57 and 59, Ludgate Hill) appeared for Drs. Duke and Beaumont.

(In the next number will appear the Report of the Judgment of the Court of Appeal.)

Obituary.

DR. JOSEPH WORKMAN.

(An Honorary Member of the Association.)

Dr. Workman was formerly Medical Superintendent of the Provincial Lunatic Asylum at Toronto, a distinguished physician, and the Nestor of Psychological Medicine in the Continent of America. He died on the 15th April last, at his home in Toronto, Canada. He had almost reached the age of eighty-nine years, having been born in May, 1805, the year of the battle of Trafalgar. His birth-place was near Lisburn, County Antrim, Ireland. One of his paternal ancestors had gone to Ireland from England more than two hundred years ago; for the doctor was a descendant of Wm. Workman, who, after serving in Cromwell's army, settled near Coleraine, in County Derry, and who, in his turn, was the son of the Rev. W. Workman, of Gloucester, England, who had been deprived of his

living and excommunicated for his fearless protestation against what he held to be idolatrous practices. The mother of the subject of this memoir was of Scotch extraction, and lived to the age of more than 102 years. Shortly after the War of Independence his father went to the United States of America for several years, during part of which time he taught English in a College at Philadelphia; but he returned to Ireland, married, had a family, and in 1829, with his wife and the rest of the family, including Joseph, he followed, to Canada, several of the sons who had gone before.

The first elements of Joseph's education had been received at a school kept by an elder brother, Benjamin, at Mullacarten, near Lisburn. Late in life this brother assisted him at the Toronto Asylum. At about the time he came of age, Joseph had been engaged in an ordnance survey in this kingdom.

At a later age than usual Dr. Joseph Workman studied medicine at McGill College, Montreal, where he graduated at the age of 30; and in recent years he was the oldest living graduate of that College. Whilst living at Montreal he married Miss Wassnidge (or Wassridge), a native of Sheffield, England, who predeceased him in 1885. Of their six children, several survive. To this lady he was greatly attached. The last day the writer called upon him he had gone to spend an hour at her grave.

In 1836, at the age of 31, he went to live at Toronto. At first, and for several years, he did not follow his profession, but was engaged in commercial business, and civic duties. Those were stirring political times, and the seething political agitation culminated in a petty rebellion. During part of this period he was a member of the City Council of Toronto. He also became the first chairman of the Public School Board of the City.

Subsequently, he became for a while a lecturer in a Medical School at Toronto, his subjects being obstetrics and therapeutics.

Eventually, in the year 1853, at the age of 48, he was appointed Medical Superintendent of the Provincial Lunatic Asylum at Toronto. Most of such appointments in the United States and Canada, except one now and then formerly, and a larger number of late years, have been made on political grounds, or on those pertaining to personal influence, the persons so appointed being without special knowledge of mental diseases or of the management of asylums. Nor, under the circumstances then existing, could there well be a wide circle of properly experienced persons to choose from. Dr. Workman remedied this lack of experience as far as he could, after his appointment, by making a visit to this country to examine the leading asylums and their working, and, we believe, with the same object, to the United States also. In all probability most of those who met him here at that time are now dead, but some years ago the writer found that at least one or two of them still retained a distinct recollection of his personality and views.

During his time of office, the Toronto Asylum underwent many improvements, and was increased greatly in size in order to meet the growing requirements of the flourishing city, and of the young country, both of which at that time were rapidly increasing in population. He was a successful administrator, kind to those under his care, patient with his subordinates, and much beloved by the junior members of the medical staff of the Institution. Yet he was somewhat inclined to kick against official restriction, and it must be admitted that his opposition to officialism was not always altogether judiciously expressed, however legitimate and proper it may have been, and probably was, in itself, a point as to which it would now be very difficult to form an unbiassed opinion. His annual reports, published with the official records relating to the asylum, were always fresh and interesting; a happy turn of expression, or an unexpected humorous or spicy tit-bit, every now and then arousing the reader's pleasurable surprise by its piquancy and appositeness.

In 1875 he retired from the medical superintendency of the asylum,

Before his retirement he had made some addresses and more formal contributions to the subject of mental diseases, but it was more especially *after* his retirement and during the next eighteen years or so of his life that, although of an advanced age, he was active in a literary way, and that he frequently presided at the meetings of Medical Associations and Societies. One of the honours he received, and that pleased him very much, was his election as an honorary member of the Medico-Psychological Association of this kingdom.

He also had a consulting practice in Toronto.

At different times he was engaged in several important medico-legal cases. Sometimes in relation to a case of this kind, sometimes concerning other matters relating to mental disease or to asylums, he engaged in newspaper warfare, skirmishes of this kind being a manner of fighting out disputed points of that nature which was much in favour on the other side of the Atlantic. Other original contributions to psychological medicine he published in medical periodicals.

But his most frequent contributions were translations, especially from the Italian medical journals devoted to psychiatry. Many important papers from them were first made known to readers of English through his translations; of which, perhaps, the most valuable were published in the "*Alienist and Neurologist*," an American quarterly journal of neurology and psychiatry.

His translations possessed a strong individuality; his style of writing was always striking, clear, and flowing. It is true he occasionally weakened his diction by coining a new and hardly necessary word, but it was seldom—far more seldom than, under the circumstances, one could have thought possible—that he selected any but the most appropriate technical equivalent term in our language to express delicate shades of technical meaning on fine points; and he possessed the gift of an easy masterly power of handling our language that was reflected in the charm both of his original contributions and of his free translations. A singular charm also pervaded his conversation; it was always fresh and crisp. To the last he was ready to communicate new ideas and to discuss the recent questions in mental and neurological science. His active, fresh, and really youthful mind was eager for mental food. "Send me what you write; I must have food, you know," were almost the last words he spoke to the writer; and on the occasions (necessarily at intervals of years only) when one could do oneself the pleasure of calling upon him he would bring some new or recently-debated subject into discussion, and show as much interest in it as if he had been half a century younger. As a linguist his attainments were very considerable, and he translated from several languages. His active mind occupied itself with medico-psychology to the last; age could not wither it, nor custom stale its variety, for it possessed freshness, plasticity, elasticity, and, therefore, real youthfulness.

He was ever loyal to his friends and to his high sense of duty. Although by pen and tongue he could on due occasion be trenchant in criticism, or turn the shafts of a keen wit against an opponent, he always fought fairly, and never acted or spoke in an unchivalrous way.

Several years ago the Toronto Medical Society presented him with an oil-painted portrait of himself, which now graces a room of the Society. A photograph of him appeared as the frontispiece in the number of the "*Alienist and Neurologist*" for January, 1890.

Our *confrères* on the continent of America will lose much in the absence from their assemblies of his fine presence, upright figure, and countenance beaming with intellectual light; and in the loss of the genial companionship of a brave and true man,

W. J. M.

SAMUEL WILLIAM NORTH, M.R.C.S.

Mr. North, a member of the Association since 1869, held several offices connected with asylums for the insane. One was that of visiting medical officer to The Retreat, York. He was also medical visitor to private asylums in the North Riding of the county. He was a highly intelligent and thoughtful observer of mental disorders, and an original thinker in many branches of medicine and social science. He studied at the York School of Medicine, famous in its day, and which had the advantage, in the forties, of Dr. Laycock's philosophical teaching. From this school emanated Dr. Hughlings Jackson, Mr. Jonathan Hutchinson, Dr. Needham, and others. Mr. North was senior surgeon to the York Dispensary, Medical Officer of Health, York Urban District, and surgeon to the York Union Workhouse. He entertained a strong opinion that workhouses, if well managed and provided with a lunacy ward, were amply sufficient for a large number of the insane, and, indeed, that the patients are infinitely more comfortable than in palatial county asylums. No one could visit the workhouse under his care without being largely of his opinion. "The experience of numerous workhouses," he observes, in the "Dictionary of Psychological Medicine," "has abundantly shown that the wants of a helpless imbecile or chronic dement may be well and cheaply met in a well-managed workhouse. It seems most probable that in the near future some effort will be made to more largely utilize our workhouses, or other economically-conducted institutions, as a relief to the over-burdened asylums, than has hitherto been done."

In the Journal for July, 1882 (p. 313), will be found an elaborate paper by Mr. North on "The Treatment of Pauper Lunatics," a paper read before a Poor Law Conference for Yorkshire, held at York, under the presidency of the Right Hon. James Stansfeld, M.P. In this paper he contended (1) that it is the duty of Boards of Guardians to provide for all their sick, including lunatics, whether in asylums or elsewhere, such treatment as they may require, and that for cases of acute and curable insanity asylums afford the best provision; (2) That for chronic and incurable cases it is their duty to reduce the cost of maintenance to as low a level as is consistent with their proper care and custody. (3) That the provision of suitable wards and attendants in connection with workhouses affords the best and most economical method of providing for the wants of this class. (4) That some supervision should be exercised over the *class of cases* sent to asylums. (5) That all pauper lunacy, certainly that in workhouses, should be placed under the direct control of the Local Government Board, who, by the aid of skilled inspection, should bring the management of pauper lunacy into harmony with the principles of the poor law, having due regard to the requirements of the sick on the one hand and the interests of the ratepayers on the other.

Mr. North contributed a valuable article on "Insanity and Crime" to the "Journal of Mental Science" in 1886. "The contention of this paper," he writes, "is that the law of responsibility in criminal cases is wrong in fact, and contrary to knowledge and experience; that the result is to introduce great uncertainty into the administration of justice, especially where persons are charged with murder; and that the punishment justly due to the greatest of crimes is rendered halting and uncertain. I contend that the ruling of judges should be altered in accordance with knowledge and experience, so that the whole truth may be submitted to the jury; that this modification would restore the certainty of punishment in a department of our criminal law which of late years has become uncertain."

Mr. North was born at Birstwith, near Knaresborough, and was young when he settled in York, where he resided to the time of his death, aged 69, on the 15th June, sincerely regretted by those who knew him. T.

Editorial Changes.

As the report of the Annual Meeting will appear in the October number of the Journal, we defer the account of the changes arising out of the resignation of Dr. Savage, beyond giving the appointments made *pro tem.* until the Annual Meeting, 1896, as they appear on the title page of the current number, viz., Dr. Urquhart (Perth), Dr. Conolly Norman (Dublin), and Dr. Goodall (Carmarthen), the Senior Editor being unchanged.

Appointments.

ADAM, WALTER, M.B., C.M.Ed., of Rainhill Asylum, appointed Assistant Medical Officer to the Grahamstown Asylum, South Africa.

BATLEY, CECIL, L.R.C.P. and S.Ed., L.F.P.S.G., appointed Junior Assistant Medical Officer to the St. Andrew's Hospital for Mental Diseases, Northampton.

EDGERLEY, SAMUEL, M.A., M.B., C.M.Ed., appointed Assistant Medical Officer to the Roxburgh District Asylum, Melrose, N.B.

GOODALL, EDWIN, M.D., M.S.Lon., M.P.C., appointed Medical Superintendent Joint Counties Asylum, Carmarthen.

ROBINSON, G. B., M.B.C.S., L.R.C.P., appointed Assistant Medical Officer to the Dorset County Asylum, Forston.

SKEEN, J. H., M.B., C.M.Aberd., appointed Medical Superintendent to the Kirklands Asylum, Bothwell.

Errata.

Vol. XL. Page 21 (*Hemp Drugs, etc.*), line 24, for *to* read *by*.

Page 21, line 34, for *chunus* read *churrus*.

Page 21, line 35, for *majune* read *majum*.

Page 27, line 36, for *alka* read *alba*.

Page 33, line 33, for *Dacan* read *Dacca*.

Page 35, last line, for *chunus* read *churrus*.

Page 36, first and second line, for *majune* read *majum*.

Page 36, first line, for *chunus* read *churrus*.

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VOL. XL.

**PART I.—THE TRANSACTIONS OF THE FIFTY-THIRD ANNUAL
MEETING OF THE MEDICO-PSYCHOLOGICAL ASSOCIATION,
HELD IN DUBLIN, 12TH TO 15TH JUNE, 1894.**

*Presidential Address, delivered at the Royal College of
Physicians, Dublin, June 12th, 1894. By CONOLLY
NORMAN, F.R.C.P.I.*

GENTLEMEN,—My first and most pleasing duty in taking this chair is to thank you very warmly for the honour you have done me in placing me here. Recalling the names of those who have occupied this position before me, I am abashed by my sense of my own unworthiness to fill it. When the question of my nomination as President of this Association was mooted, I would fain have stood aside, but the kindly representations of those members who said that it was Ireland's turn for an Annual Meeting made me feel that I could not evade the honourable task which was put upon me, even though I feel that I am very far from being the fittest of my contemporaries to undertake it. I have also been moved to accept your kindness and the distinguished honour you have conferred upon me in the hope that a meeting might be arranged in Dublin in such a way as to further the objects of the Association and to be of advantage to the members, particularly to those who live in Ireland. How far this hope may be fulfilled remains to be seen. I trust, in any case, that our present meeting may be so far successful that all our future Annual Meetings may be working meetings, and that under successors, I hope more competent than myself, the Association may be thereby materially aided in its forward path. For this meeting we have, I am happy to say, a very large and comprehensive

programme, the members having heartily seconded the efforts of the General Secretary and myself to bring in good material. I desire no credit for this. I may say, with Montaigne, "I have brought you here a nosegay of sweet flowers; nothing is mine but the string that ties them together." It is, perhaps, the function of the Chairman of such a meeting as this rather to aid and to suggest discussion than himself to take a very prominent part therein; rather to offer opportunities for others than to make them for himself; rather to be the whetstone than the chisel—

"A whetstone is no kerving instrument,
But hit maketh sharpe kerving tolis,
And that thou woste I have oughte miswent,
Eschew thou that, for such thing to thee scole is,
Thus oghte wyse men beware by folie."

Nearly thirty-three years ago our Association held an Annual Meeting in Dublin for the first time, under the presidency of my predecessor in office at the Richmond Asylum, Dublin, Dr. Lalor, whom the older members will recollect with esteem and affection. The Association met again in Dublin, under the presidency of Dr. Duncan, then President of the Irish College of Physicians, nineteen years ago, in 1875, the year, as it happened, in which I joined our specialty. It would be impossible for me to pretend to trace the progress of psychiatry, or to sketch the history of our Association, even from the latter date. Neither would my ability, nor the time at my disposal, permit of such an attempt. But I cannot proceed without congratulating the Association on its steady growth in size and on its steady increase in influence. Since we first met in Dublin we have nearly quadrupled our numbers. We have now almost 480 members—a large population for a specialist society. We still, in my opinion, lack organization, and in many ways do not make the best of our opportunities; but the spirit of advance is active among us, and we have not feared last year to largely rearrange our rules so as to meet the altering conditions of the time. In making these changes I think the Association has done well to reaffirm the principles on which it was originally founded. The complaint is sometimes made, and it is frequently entertained where it is not loudly promulgated, that our Society does not look sufficiently to the material interests of its members. Let me say that I look upon this view as a very mistaken one, and that I hold that the scope and aim of our Association ought to be as remote

as possible from those of a trades' union. We can take, and we ought to take, a much higher ground. Our Association consists of men who practise a highly-specialized and very important branch of medicine—important on account of its social bearings and the wide-reaching charity with the organization of which it is concerned, no less than from its position in the medical hierarchy. Dealing, as it does, with the latest acquired and the most complex of the human functions, psychiatry has been one of the last of the specialities to obtain a distinct footing. No branches of medicine, anatomy, and physiology attract more attention or better workers at present than those dealing with the nervous system; and although we await, for the fullest development of our specialty, the further progress of normal and pathological anatomy and physiology—sciences, in strict logical order, subordinate to ours—yet we can even now claim to follow one of the most scientific branches of medicine.

As students and workers in this branch, our best interests are identical with the interests of our patients and of the public, and are also the common interests of science. We have, therefore, a position of great advantage. In pressing the cause of knowledge, of humanity, and of public charity, we are pressing the claims of our Association and of ourselves. Our success depends upon two things—first, the disinterestedness of our motives, and, next, our title to be considered active workers. These being proven, and the importance of our department being recognized, as it now universally is, we cannot fail to enjoy power and influence, and the material advantages which follow them. It is chiefly in this indirect way that the organization of our Association can better our condition.

In one striking point, a point of the first importance, we note an advance for which our Association may largely claim credit. When we last met in Dublin the President, in his Address, expressed regret that the experiment of clinical teaching which had been attempted at the Richmond Asylum had failed. The course was a voluntary one, and its importance was not sufficiently understood to enable it to be kept up. Now, clinical instruction in mental disease is a necessary portion of the medical curriculum throughout the United Kingdom. I believe our Association deserves the credit of having directed public opinion to this great step.

Further development in education is needed, and in one important particular I think our Association should at once

make itself heard. Improvement of our specialty or of our Association means essentially improvement of ourselves. Our Association can help us vastly in this direction. It stands to psychiatry in the same relation in which the colleges have stood towards medicine and surgery, and it has a similar mission. It is to be observed that the licensing bodies acquired the position which they now occupy as the portals of the medical profession because they were able to show that they safeguarded the interests, not of the profession, but of the public, that they sought the improvement of physio through the improvement of the physician. Medical registration was adopted, not to increase the power, privileges, and wealth of a limited class, but to protect the people and to secure that those to whom, by the nature of things, vast powers for good or evil are committed, should be competent to exercise such powers. Neither will our specialty acquire its due authority until it insists upon the thorough education of its members and till it enforces proper qualification for the holders of important lunacy appointments. The machinery for working out this idea exists in our Association. We have already a certificate in mental diseases. The institution of this certificate has done good service directly, and also indirectly, since, no doubt, our action in this matter stimulated the Medical Council into insisting upon instruction in mental diseases in the new curriculum. But we should not be content with this, nor flatter ourselves that we have done our work in this matter. We should press upon asylum authorities that no medical officer should be permanently appointed to an assistantcy who had not, within a limited period of probationary service, passed a special qualifying examination in psychiatry. Farther than that, no step should be given to an asylum officer who had not passed an examination entitling him to promotion. These views should not only be placed before asylum authorities, but our Association should constantly agitate the subject till custom, and, no doubt, eventually legal enactment, give sanction to our contention. It will at once be said this is chimerical. The appointments in asylums are not in Government hands, and there is no means of enforcing such regulations upon local bodies. True, in a sense; but a man is not allowed to command a merchant ship who has not a master's certificate; he cannot even become a mate till he obtains a mate's certificate, and yet the ships of the mercantile marine are private property, even in a fuller sense than proprietary

asylums, not to mention public asylums, which are, in certain respects, the most strictly regulated institutions in the country. Asylums should be officered, in the first instance, by highly-qualified young men well grounded in the most modern methods of research, and these men should be kept up to their work by examinations through which it would be necessary to pass before attaining a higher grade. The result of this would be to weed out insufficient men if such got into the service, and to prevent men who did not take enough interest in their specialty to work it thoroughly from rising to the best positions through mere seniority. It would make promotion a question of capacity, not of chance. The work of education in psychiatry is the most useful object to which our Association can devote itself. It brings us into close and fertile connection with the rest of medical science, and it is a work which such a Society as ours is eminently fitted to undertake. So useful is it also to individuals, and so valuable is the teaching and the learning spirit in asylums, that I should wish to see every public asylum a recognized centre of clinical instruction. In connection with this, I may say that I entertain a strong opinion that every asylum should contain medical officers of that grade which we commonly call clinical assistants, intern officers who remain in asylums for a short period and give their services in lieu of the instruction and experience they obtain. Not only is this system beneficial by helping to leaven the profession with some knowledge of our specialty and our work, but I think it is of great benefit to the senior medical officers, particularly in places where there cannot be a large class of extern pupils. Men keep young and fresh by contact with the minds of their juniors, and thereby, too, the teaching instinct is kept alive, and while it continues to exist the learning instinct can never wholly fail. The lack of medical spirit in asylums, of which we have heard so many complaints in recent years, is, I believe, vastly exaggerated, but a tendency in this direction can be best held in check by active teaching work, whether clinical or pathological. While in teaching, in organizing teaching, in obtaining recognition for teaching, and insisting upon its importance, our Association can greatly help us to improve ourselves; there are certain unhealthy elements in every specialty which every man practising in it must combat by individual effort. Without giving way to hypochondria or self-pity, I think we must concede that some of these are

more dangerous to us than to other specialists. Our calling is in its nature a depressing and trying one. We live among our patients, in the midst of disappointed expectations, shattered hopes, blighted lives—the ruin and wreckage of existence. The constant tension, the continual feeling of responsibility under which we ourselves work, are wearing on all, exquisitely so on some. The routine nature and the seeming triviality of much of our labour—"of trouble full and idle patch-work"*—weary us. The peculiar combination of worry and monotony which characterize asylum life often torture us. Some of us, though our responsibilities are not lessened, still work under very difficult conditions, and have occasion often to recall the bitter cry of one of the earliest and most stout-hearted of lunacy reformers, "In things essential all men desert me."

I do not say these things because I think it well for us to dwell upon the disadvantages of our position. Nay, quite the reverse, but it is essential that we should recognize the injurious influences which our mode of life is likely to exercise upon us, in order that we may guard against them. Clearly there are tendencies in asylum life that make for narrowness, gloominess, and sullen self-asserting isolation. So much the more then does it behove every asylum officer to individually struggle to maintain clearness and width of view, detachment of mind, the dry light of the intellect. Let us bear in mind the wailing of the wretches whom the Florentine saw stuck in the mud of the fourth circle—

"Fitti nel limo dicon: Tristi fummo
Nell' aer dolce che dal Sol s'allegra,
Portando dentro accidioso fummo;
Or ci attristiam nella belletta negra."†

One of the most remarkable advances which has taken place in the practice of our specialty during the last nineteen years has been the increasing interest exhibited in pathological work. Nineteen years ago the Somato-Etiological School (so called) held the field. That school did, and had done, good work. It nevertheless checked the progress of

* Voll Müß' und eitles Stückwerk.

† "Fixed in the mire, they say, we sullen were
In the sweet air which by the sun is gladdened,
Bearing within ourselves the sluggish reek;
Now we are sullen in this sable mire."

LONGFELLOW'S TRANS.

rational pathology. The dependence of the mind upon the body was rightly enough insisted upon, but the morbid conditions of the brain being extremely obscure, and those occurring in other organs being often very obvious, too much attention was paid to the diseases related to insanity, and too little to any attempt to investigate the pathological basis of insanity itself. Nobody who had any comprehension of the subject probably ever believed that insanity is immediately due to changes in the liver or the kidneys. Nevertheless, a certain confusion of mind crept in. No man willingly dwells on that of which he is comparatively ignorant rather than on that which he can demonstrate, and so when changes were found in other viscera than the brain, or when mental trouble was found associated with symptoms pointing to other organs, the physician was too apt to lose sight of the fact that whether this connection was causal or casual it in no way accounted for the special symptoms of brain disease. Thus true pathology was obscured, and the morbid anatomy of the nervous centres did not receive the attention which it deserves.

We are now on a better path. We talk no more of bodily diseases as opposed to diseases of the brain. We are learning a little of brain pathology, and if there is much therein which is still obscure to us we are in the way of amending our ignorance since we know it. The old philosophic writer has very truly said: "Great abuse in the world is begot, or, to speak more boldly, all the abuses of the world are begot by our being taught to be afraid of professing our ignorance, and that we are bound to accept all things we are not able to refute. . . . Whoever will be cured of ignorance must confess it. . . . But there is a sort of ignorance strong and generous, that yields nothing in honour and courage to knowledge—an ignorance which to conceive requires no less knowledge than knowledge itself."

Everywhere now there is activity and energy in pursuit of pathological study and the study of nervous physiology. The great pathological schools of the asylums of Wakefield and Morningside are being closely pressed by several competitors, and asylum committees, led with princely liberality by the London County Council, who are recognizing the claims of a subject formerly unacknowledged. We have tasted the first fruits of these endeavours, and we look forward with confidence to a rich harvest in the future.

Of the activity in this department at present existing

among our members we shall have admirable proofs during the next few days.

I regret very much that the many circumstances of disadvantage under which my colleagues and I attempt to work preclude us from being able to offer for your criticism any samples of our labours in this direction at the Richmond Asylum.

Throughout the last year my own attention has been for certain reasons almost entirely devoted to the perhaps less congenial but very important question of asylum accommodation, and there are two or three matters in this connection on which I would like to say a few words. I think that certain developments in the care of the insane, which have taken place of recent years on the Continent, have hardly received the attention which they merit. England and Scotland have done so much for the improved care of persons of unsound mind that we sometimes forget that "there's livens out of Britain."

First, I would say that the great asylum of Alt Scherbitz, near Leipzig, has proved so successful a new departure that one cannot doubt but that it will be the model asylum of the future. Here the modern principles of dealing with an asylum population are carried out to the fullest extent. Instead of vast buildings, modelled on a prison, a barrack, or a monastery; instead even of semi-detached buildings, connected by passages, the entire institution consists of groups of houses entirely detached and every one surrounded by its own garden. There are three great groups. One, for the recent and acute cases, the sick, and those requiring special supervision, consists of several separate blocks and is intended to accommodate about one-third of all the patients under treatment. The largest of these blocks contains 41 patients. They, like all the other blocks, are entirely disconnected, and this disconnection is regarded as an essential of construction. It is admitted that covered passages between the buildings are convenient, especially in sloppy weather, but they give an air of confinement to the institution which it should not have, and they needlessly and materially add to the cost of construction. The authorities of Alt Scherbitz, indeed, attribute the inordinate cost of many of the modern English asylums largely to the money wasted on connecting corridors.

The second group of buildings, to which the name of colony is given, consists of a number of plainly-built houses,

arranged round a farm-stead as a centre, from which, however, many are a long way removed. In these buildings, less elaborate than the infirmary buildings, the working patients live. They are constructed to resemble, as far as possible, the ordinary houses of the neighbouring country. Farm work forms the chief feature of the labours carried on, but all kinds of workshops are provided. There is provision in a couple of the houses for the treatment of the sick, emergency cases, or such cases as for any reason it is not desirable to send to the infirmary. A number of male patients are also located in houses in the village of Alt Scherbitz, which have been modified for their reception. The third group, an afterthought, for the accommodation of old and broken-down demented for whom asylum treatment is to be regarded as a luxury more than a necessity, calls for no special comment.

Two points deserve notice—management and cost. The governing principle of the administration being, as Dr. Paetz, perhaps somewhat quaintly, remarks, that everything subsisting on the property is only there with the object of treating the patients, it therefore follows that the directing physician is entirely responsible for the whole administration. Accordingly the entire institution is under the control of the director (medical superintendent), and all the officials and employés are strictly subordinate to him. There is no attempt at dividing authority, and no endeavour made to separate what are inseparable, so-called administrative and medical duties. Administration exists for the treatment of the patients, and so becomes a medical duty. The physician and director (resident medical superintendent) is assisted by five other resident physicians, of whom the senior acts as deputy. The property was very carefully chosen by a Commission of the Diet of Saxony, who acted on the noble principle that considering the object in view the best site procurable was only just good enough. It contains about 700 English acres, and cost (with the buildings which were in existence, farm stock, etc.) £50,000. The entire institution accommodates 960 patients. Building, furniture, and electric lighting cost £86,090. Total cost thus amounts to £136,090, or £142 a bed, a very moderate sum compared to the cost of the most recent asylums in these countries.

The institution at Alt Scherbitz was opened in 1877, and so is now in the eighteenth year of its existence. Almost all recent additions to German asylums have been built with a

view to approximating to the model which it offers. This bold departure from the conventional ideas of asylum architecture and asylum management seems, as far as the treatment of the insane in institutions is concerned, to form the coping-stone to the great structure of non-restraint, the foundations of which were laid by Pinel and Tuke more than a hundred years ago. It is to be hoped that in the countries of both these great men this last reform may soon be accepted, and that we shall not see many more of those vast and costly buildings erected which one of our number long since truly designated as "gigantic mistakes."

The family care of the insane has been the subject of a remarkable and very successful experiment during the last eight years in the Berlin district. The asylum for the district at Dalldorf having become over-crowded, it was determined to board out a number of patients who were held still to need specialist care. At the end of the year 1893, 209 patients were thus provided for. The method adopted is somewhat similar to the Scotch boarding-out system, on which, however, it is a great improvement, and its remarkable features are the facts—That the boarded-out patient remains in special care and under the supervision of an asylum physician, who sees him at least twice monthly; that no certification or legal formality is required for the patient's readmission within the asylum; that, indeed, patients are freely returned to the asylum, and that the movement of population thus produced is very considerable; and that the system is not one of colonization in the strict or original sense of the word, no special district being set apart for the reception of patients, and their occupation being usually not agricultural. On the other hand, family care has been in this instance carried out successfully under circumstances which one would not have said *à priori* promised success, a considerable majority of the patients having been boarded-out among the working population of a large and growing town. That excellent results should have been obtained under the great difficulties which must have surrounded the inception of this enterprise is another proof that in the management of insanity, as in everything else, almost anything is possible which is undertaken with intelligence and earnestness. "Es gilt wohl nur ein redliches Bemühen."

The same tale is told by another remarkable experiment which has been crowned with distinguished success, though it was begun amidst the usual prophecies of failure. I

refer to the insane colony at Lierneux, in Belgium. Now, we have been hearing of Gheel and its remarkable work for many generations, and it has become almost a stereotyped remark that wonderful as Gheel is, it is quite inimitable. The traditions of ages, we have often been told, cannot be transplanted, and a second Gheel is an impossibility. Yet lo! a second Gheel has arisen, has been deliberately planted, and has taken root and flourished. I do not think this subject is familiar to any of my hearers, and so I hope they will bear with me for a moment while I lay before them a few facts regarding Lierneux. Great inconvenience having been experienced in consequence of the circumstance that Gheel is situated in Flemish Belgium, and that as the Walloon patients could not speak the Flemish tongue which still prevails among the peasantry of the Kempenland, it was determined to attempt the establishment of an insane colony in the Walloon country. The situation selected was Lierneux, in the southern portion of the province of Liége. The neighbourhood is entirely an agricultural one, and the colony is free from railways, rivers, or other supposed special sources of danger. It consists of about 2,500 acres of land, with a population of about an equal number of inhabitants, who dwell in the village of Lierneux itself, and seventeen little hamlets scattered through the surrounding country. It is intended that this colony shall eventually receive 1,000 patients. The colony was actually opened ten years ago, on April 19th, 1884, on which date two male and two female patients were draughted thither from Gheel. On the 31st December, 1892, there were under care in the colony 349 patients; 208 men and 141 women. For a considerable time there was no special building whatever for the insane. Quite recently an infirmary has been built near the village of Lierneux, containing sixty beds, and providing several divisions supplied with dormitories, single rooms, bath rooms, and in a word, to quote a recent report, all the resources of therapeutic art. Heretofore a somewhat dilapidated house in the village had been used as a substitute for an infirmary. Such an arrangement, as Dr. Féré remarks, "is unsuitable, but it proves at least that the foundation of a colony can be attempted without any preliminary expenditure." No doubt motives of economy account for the delay in constructing an infirmary, which was not undertaken until it was manifest that the colony was working satisfactorily and was firmly established. Notwithstanding this and many other difficulties, progress

has been steady and very satisfactory. The hosts soon learned to manage their charges, and took a pride in them. Applications for patients rapidly increased in number, and though it is stated that much care is exercised in selecting suitable persons, yet the register of those authorized to receive patients soon exceeded the number of disposable patients. The general management of the colony is identical with that of Gheel, and, therefore, does not need a particular description. The important fact to bear in mind is that a new Gheel, without any of the traditional advantages of the old, has arisen, and within ten years has made good its claim to be regarded as a thoroughly successful experiment, and there seems to be no doubt that this colony will within a few years more attain to the full development which it was intended to achieve. How often within those ten years has the Gheel system been discussed in other countries, and generally with the conclusion that whatever its advantages may be, Gheel is a place which can never be imitated!

Gentlemen, I have detained you too long with remarks having little claim to originality. A pleasing duty remains, akin to that with which I began my observations. It is to welcome to Dublin those of you who are strangers to our city, and to thank you, not alone for the patience with which you have heard me, but more especially for the large attendance of members from, I may say, all parts of the world, whom I see around me to-day. I am aware that the date of this meeting is, unfortunately, not convenient for many members, otherwise there would have been even a fuller attendance. Many have been the kind expressions of regret for absence which have been sent to me, while the enthusiasm with which the notion of a several days' meeting has been received, and the substantial support in the shape of material which it has elicited, augur well for the future of our Association, and have been, if I may be allowed to say so, a source of the greatest gratification to me.

Dr. NICOLSON (Broadmoor), in proposing a vote of thanks to the President for his Address, said that all of them, and the Association generally, must be congratulated, and indeed, they must congratulate themselves, upon the fact that Dublin had been selected for the place of their Annual Meeting this year, and certainly Dr. Conolly Norman had proved himself to be the individual who ought to be their President, not only by the past work which he had done for their Association, but by the most admirable *résumé* which he had just given them of the needs of reform in connection with asylum work at the hands of those who have taken up this specialty. Their President had given them much food for thought in connection with these new developments, which it was for them to say how far they could improve on in connec-

tion with the various establishments that might be placed under their care and management. On an occasion like the present such an Address was fortunately outside the pale of criticism. They had to listen to it and think for themselves upon the various suggestions which their President had made, and he was sure he would have them all with him when he conveyed to Dr. Conolly Norman the expression of their grateful thanks, not only for this admirable, useful, and suggestive Address which he had given, but for the great pains which he had taken in collecting a large and sympathetic body of fellow-workers around them upon that occasion, and for the programme which he had presented to them, and above all for the gracious and abundant hospitality which he had extended to their honoured guests and to themselves as an Association.

The **EX-PRESIDENT**, in seconding the motion, said the Address was such as they might have expected from one possessing the broad and liberal views of their President. Their President had hinted indirectly (he did not suppose intentionally) at the part solution of one of the burning questions at present agitating the minds of certain asylum officers. He referred to his remark about the examination of Assistant Medical Officers. The President's suggestion would have this practical effect, that it might, perhaps, weed out some who were, perhaps, blocking the way. It would certainly reduce the chronicity from which they were to some extent suffering, and he thought the suggested examination would be a very great, progressive improvement. There was another point with reference to the appointment of Clinical Assistants in asylums. Well, that might be very desirable but it was one of those things in which theory and practice do not always go together, and one sometimes had to modify one's views with reference to them. It was all very well where an asylum was near a medical school. But in the case of an asylum, say, five miles from a large town—a provincial asylum, where the Superintendent was not an examiner—men would not come. At one such asylum there was not a single applicant, and at another there was only one. So that while it was very desirable to have Clinical Assistants in all asylums, it was not always easy to obtain them. He heartily agreed with the President's remarks about the erection of huge barrack asylums, and he thought that the Association would be remiss in its duty if it did not represent to the Home Secretary the necessity for preventing the erection of such monster asylums. New buildings should be made to accommodate, say, about 800; but certainly not more than 1,000 at the outside. That would, apart from other benefits, remove some of the grievances under which medical officers at present laboured. It would also make more vacancies, and thereby increase promotion.

Dr. HACK TUKE, in supporting the motion, said he was very glad to hear the President in the course of his Address refer to Alt Scherbitz. He had visited that establishment, and it seemed to him to be arranged in a way that asylum architects in England ought to study. After his return, he induced the architect of a London County Asylum to visit it. That architect had come back full of enthusiasm in regard to the system adopted in the arrangements of the buildings, and although a prominent man connected with the London County Council said it was out of the question introducing it near London on account of the amount of land required, the architect was not convinced of this. At any rate he believed that the plan could be carried out at greater distances from the metropolis. He had in view to introduce as far as possible the general principle of the Alt Scherbitz system. He (Dr. Tuke) strongly recommended all connected with asylums to study it, and would advise the younger men especially to include in their autumn holiday a visit to Alt Scherbitz, where they would find Dr. Paetz most happy to give them every information. In conclusion he begged to express his appreciation of the Address.

The motion having been passed by acclamation, the **PRESIDENT** made suitable acknowledgment.

Insanity of Persecution. By DR. RENÉ SEMELAIGNE, Paris.
Corresponding Member of the Medico-Psychological Association.

Ideas of persecution may be met with in nearly all forms of mental disease, but I intend at present to deal only with the cases in which these ideas predominate and constitute the very essence of the morbid condition.

The pathological state described by Lasègue under the name of persecutory delusion can no longer be considered as a clinical entity. Lasègue himself stated this shortly before his death, and induced his pupils to revise his work. He had found in many sufferers from persecution the late appearance of ambitious ideas—that is, he said, the dotage of the delusion. The too restricted distinction between “chronic delirium” and “delusions of the degenerate” is wanting in exactness. It will be useful, therefore, to separate and to classify the different varieties. Dr. Jules Falret has devoted to this work all the energy of his last years. It is to him that we owe, on several occasions, directed the dangers to our Medico-Psychological Society of Paris to discuss with which question, and, thanks to his insistence, it has been proposed as the subject of the Aubanel prize to be awarded in 1895.

Before proceeding further, I am anxious to explain why I discard the expression “delusion of persecution of the degenerate.” And at the very outset we must ask: What is degeneration? Dr. Magnan divides the hereditarily degenerate into four great groups:—Idiots, imbeciles, the weak-minded, and the unbalanced (comparatively intelligent degenerates). Among this last class he describes a special delusion of persecution, and states that individuals may be recognized by stigmata of degeneration, either physical or psychical. The distinctive physical signs are irresistibility, accompanied by agony, complete lucidity, and satisfaction following the accomplished act. In the comparatively intelligent or high-class degenerates the systematized forms of insanity present as special characteristics a sudden onset, delusions often polymorphous, of short or long duration, but without a regular succession of determinate periods. According to Dr. Magnan and his pupils, Drs. Paul Garnier, Briand, Saury, Legrain, and Sérieux, the patients suffering from “chronic delirium” are never degenerates. “Chronic

delirium" would thus appear to be distinct from degeneration, and that is, in my opinion, the disputable point of the doctrine.

Degeneration, said Morel, is a deviation from the primitive or normal type of humanity. According to this distinguished alienist, insanity is a degeneration, and degeneration is a cause of insanity. Degeneration is acquired or hereditary. The acquired form may be handed down to the offspring, thus becoming hereditary. It is a favourable soil for disease; and the weakest point of the organism, the point of least resistance, is that which breaks down. The brain of the degenerate invites the psychoses. Such patients may recover, for degeneration is not inevitably continuous and progressive. In certain cases it is only temporary, and recovery takes place. There is a return towards the primitive normal type.

To resume, persecution-mania only attacks those who present a predisposition to the inception and evolution of the disease—those who, in one word, happen to be in a state of degeneration. Every persecuted individual is consequently degenerate. Therefore, instead of describing a ^{examiner—men} applicant, and at another a "delusion of persecution peculiar to have Clinical Assistant," we must admit several forms of delusions ^{of persecution.}

But before describing these different varieties it is important to distinguish the difference between melancholia and delusion of persecution.

Dr. Jules Falret thus distinguishes between these two pathological states:—

1. The persecuted are *proud*, the melancholic are *humble*.
2. The persecuted are *active*, and present the general characteristics of monomania; the melancholic are *passive*, and present the physical and mental characteristics of melancholia.
3. The persecuted have the *feeling of physical health*, and suffer only because they are made to suffer; the melancholic, on the contrary, have a *profound feeling of uneasiness, of physical and moral suffering*, and are even so miserable as to be tired of life.
4. The persecuted become persecutors, threatening and *homicidal*, whereas the melancholic tend to *suicide*.
5. The persecuted *accuse others* of making them suffer, defend themselves, and think only of strife and revenge; whereas the melancholic *accuse themselves* of imaginary

crimes, or believe themselves falsely accused of crimes which they have not committed.*

6. The persecuted are constantly occupied with the *past* or the *present*, and in most cases go back very far into the past to find evils which others have inflicted upon them; the melancholic, on the contrary, occupy themselves but little with the past or the present, but they have, as Lasègue said, *a constant dread of the future*, and of all kinds of misfortunes which are going to happen either to themselves or to their families.

7. The persecuted often tend to delusions of *grandeur*, and the melancholic to delusions of *negation*.

These characteristics seem to establish a clearly defined separation between melancholia and mania of persecution. But, in practice, we meet with a certain number of patients who appear to present symptoms common to both these states. Drs. Ballet, Séglas, and Jules Voisin have lately reported certain cases of mania of persecution who in many respects resemble melancholiacs; patients accusing themselves of imaginary crimes, and feeling so miserable as to be tired of life. The observations of Lasègue and Legrand du Saulle regarding suicide in mania of persecution have been called in question; but Dr. Christian has protested against too absolute affirmation in an article published in the "*Annales Médico-psychologiques*" for 1887. Some have gone as far as delusions of negation; some have committed suicide. On the other hand, there have been melancholiacs who became homicidal, or who entertained ideas of *grandeur*.

I was lately called to attend a lady suffering from melancholia, and tormented by an irresistible impulse to attack those around her. The sight of children inspired her with a desire to tear and eat them. She could not look at strawberries and cherries, because the red colour gave her ideas of blood and murder. "I should like," said she, "to kill all past, present, and future generations, to destroy all that ever was, is, or will be." And she added: "I never had such a clear memory as at present. I remember the names of persons seen when I was a little child, and long forgotten, and I wish to kill them." This was a woman of remarkable intelligence and of the highest culture. She could converse on many subjects, and even corrected the proof sheets of a book while thus affected. It was with an

* It is necessary to carefully distinguish between these two classes of melancholiacs.

inexpressible anguish that she waited for the executioner who had to inflict on her the fearful tortures decreed for so great a criminal. At last, one morning she declared that she knew her crime; she was the Anti-Christ; she had guessed it in the course of the night.

So, if we meet with ideas of homicide and of grandeur in certain cases of melancholia, we may also ascertain the presence of self-accusation, suicide, and even delusions of negation in those suffering from delusions of persecution.

Baillarger has pointed out psychical hallucinations, and Séglas has described verbal psycho-motor hallucinations, so called in order to direct attention to the intervention of the motor centres of language. This physician, and later Dr. Jules Voisin, have lately proposed to designate under the name of the psycho-motor variety of persecutory delusion certain states characterized by a sudden doubling of personality, with want of will power, and impulsive motor hallucinations. Those patients most frequently explain their symptoms by ideas of demoniacal possession. Some blame hypnotism or the telephone. They are, at the same time, victims of obsession and possession; their thoughts are guessed and stolen; they find themselves compelled to speak by an internal power, or are absolutely incapable of uttering a word.

But this form is not always primary and inceptive. There are those who only present psycho-motor hallucinations after long years; and, on careful investigation, some of these hallucinations may be observed in nearly all varieties of delusion of persecution. They are very frequently met with in women whose derangement appears about the change of life, and are then nearly always auditory hallucinations. With others, on the contrary, the phenomena of hearing are confined to insane interpretations; these are in most cases individuals with a hereditary taint, who, instead of presenting the type of the proud persecuted, are rather the humble persecuted. They say, indeed, that people harbour ill-will against them, but they admit that it is with good reason. Drs. Ballet and Séglas have directed attention to these guilty self-accusing victims. They may, at any moment, and under the sway of exasperation, commit a murder, but they are rather inclined to suicide. The generative organs appear to exercise a certain influence on the evolution and form of their insanity.

Lasègue had pointed out the "persecuting persecuted,"

Dr. Jules Falret repeatedly insisted on this clinical variety, and induced one of his pupils, Dr. Pottier, to make it the subject of his thesis. Further, the legal responsibility of this class was the subject of a discussion at the Congress of French-speaking alienist physicians held at Lyons in 1891.

Nearly all alcoholics present ideas of persecution. But we meet with some, generally hereditary cases, who, under the influence of alcohol, are seized with a true systematic delusion of persecution. This delusion often disappears after a few months, but it may continue, and even become permanent.

Certain senile cases who, in the previous course of their existence, have not presented any clearly marked morbid troubles, may be seized with delusions of persecution, beginning with attacks of dizziness, and presenting certain special characteristics.

To resume, there is not *one* persecutory insanity; there are several. To propose a clear and distinct classification of them would be difficult. I rely on you, gentlemen, to assist me in this undertaking, and shall, firstly, propose two great groups—on the one hand, the *persecuted who are proud or self-satisfied*; on the other, the *persecuted who are humble*.

A. The first group, the persecuted who are proud, has been the more minutely investigated, and contains five varieties:—

1. Delusions of persecution, with systematic progressive evolution.

2. Delusions of persecution of reasoning persecutors.

3. Delusions of persecution of alcoholism.

4. Delusions of persecution at the climacteric.

5. Delusions of persecution of senility.

B. The second group, the persecuted who are humble, contains the patients who present delusions of persecution, with ideas of guilt. These patients have generally no hallucinations of hearing, but insane interpretations of the sense. They are inclined to suicide, and frequently present a doubling of personality.

Let us take a rapid glance at these different types:—

1. *Delusion of Persecution, with Systematic Progressive Evolution*, which is the typical variety. It is the form described by Dr. Magnan under the name of "Chronic insanity, with systematic evolution;" by Dr. Garnier under the name of "Systematic progressive psychosis." Dr. Jules Falret has, in a masterly manner, explained its evolution in his lectures

at the Ecole Pratique, and at the Salpêtrière. This variety may be divided into three periods.

- a. Period of incubation.
- b. Period of invasion.
- c. Period of typical state.

To these three periods is sometimes added a fourth, as we shall see presently.

a. *Period of Incubation*.—The beginning of the disease generally occurs about the age of puberty, after a very long period of incubation, of which the patient is unconscious. He has not yet adopted determinate delusions. It is the period of *primary anxiety* of Dr. Magnan, the period of *insane interpretation* of Dr. Falret. The patients falsely interpret true facts; they apply to themselves words they hear pronounced around them; they are distrustful, they isolate themselves, and are restless, moving from place to place.

b. *Period of Invasion*.—Hallucinations of hearing begin to be formed. They consist at first of words, separate short sentences, and coarse expressions directly addressed to the patient. To the hallucinations of hearing are added hallucinations of general sensibility, which generally follow, but sometimes precede them.

c. *Period of Typical State*.—This is the period of systematized delusion. Some patients, as Foville said, hurry over the first stages, but the affection is generally very chronic. This period may be subdivided into three—(1) *Ideas of vague persecution*. The patient says, "They electrify me, they abuse me, they mix injurious substances with my food, they fling bad odours at me," etc. (2) *Ideas of collective persecution*. He believes in mysterious influences (the devil, secret societies, Jesuits, Freemasons, the police, etc.). (3) *Personification of the delusion*. It is no longer a collection of individuals; it is some person in particular who persecutes the patient. The latter has made his choice of the persecutor—a relative, a friend, a neighbour, a servant, a priest, a doctor, a real or imaginary being. These patients are very dangerous, because from being persecuted they readily become persecutors; and, if they are not dealt with in time, they take revenge. Quite lately one of my friends, Dr. Gilles de la Tourette, was shot by a female patient who wished to kill a specialist in nervous diseases. Fortunately, he was but slightly wounded, and the patient was placed in an asylum, the only place suitable for her. This period very

seldom ends in true dementia; they may go on to 70 or 80 years of age, and still retain their full intellectual activity, along with systematic delusions.

The period of delusional systematization gradually culminates in fixed delusion. The patients have then a special vocabulary and language, which at the first word, render the diagnosis of that state easy. With the abuse directed at them are mixed words of consolation; good voices answer the bad, and take up the defence of the patient. It is then that psycho-motor hallucinations and the doubling of personality are manifested. Their thoughts are stolen, they hear them repeated before they have been able to open their mouth. Sometimes words are spoken to them which they do not understand. This indicates a very chronic condition.

d. Period of Ideas of Grandeur superadded.—Delusions of ambition, constant in some, are not so in others; they are, however, very frequent. Ideas of grandeur are added to ideas of persecution, but do not efface them; often hidden, they may exist when not suspected. They are produced in three different ways—1st. By the logical process of Foville. The patients, in seeking the cause of the persecution to which they find themselves exposed, finally imagine themselves to be persons of great consequence. 2nd. By the intervention of hallucinations of hearing; the voices keep telling them that they are such or such a great personage, that they belong to a Royal Family, etc. 3rd. Sudden apparition, often within the space of one night. The patient awakes in the morning with an idea of grandeur which has come to stay. Some can specify exactly the day and the moment when the idea originated.

Professor Mairét, of Montpellier, thinks that the delusion of grandeur is more or less marked from the very first, and that the germ of it may be discovered in the personal antecedents, even before the development of mental trouble.

2. Delusion of Persecution of Reasoning Persecutors.—Nearly all the persecuted may, at a given moment, become persecutors, and have recourse to acts of violence; there are some who, falsely interpreting a true fact, reason about their delusions, and pose before the public as enjoying the full possession of all their faculties. These patients, by so much the more dangerous as their derangement escapes recognition, had been recognized by Lasègue. Dr. Jules Falret has also described their mental condition most minutely; and Dr. Pottier has referred to them in his thesis

in 1886. These patients present the bodily and mental characteristics of moral insanity. They present the physical and psychical stigmata of morbid heredity. There are frequently anomalies of the generative organs. From their very childhood they are odd, eccentric, averse to discipline. Their life is full of adventure and excitement. They are generally intelligent, and often enjoy a remarkable facility of elocution. They discuss their grievances, and earnestly endeavour to justify themselves by copious arguments. Tortured by a thirst for notoriety, and by the desire for revenge, they continue to dog the footsteps of those whom they have chosen for their victims. They have recourse to letters, to visits, to threats, to law-suits. Some day, at last, they do not obtain the reparation looked for, and they use violence.

If they are put under arrest, their mental condition is difficult to demonstrate, because they are reticent, and very cleverly hide their delusions. A short stay in an asylum is sufficient to calm their excitement. They protest against being confined, they write to everyone, and finally manage to procure their liberation. They then recommence their attacks, either on the same persons or on the doctor of the establishment where they have been confined.

Most frequently these patients present no hallucinations of hearing nor of general sensibility; but they have occasionally insane interpretations. In general they are proud, but their ambitious notions differ from those of the other persecuted. They have a high idea of their merit, but never go so far as to believe themselves God, King, etc. We often observe cerebral congestive or convulsive attacks, which are renewed several times in the course of their existence. Dr. Jules Falret observes that most of them die of some affection of the brain. In no case does their mental state lead to the chronic periods of persecution with systematic progressive evolution.

We may distinguish three varieties of reasoning persecutors, the *criminal*, the *litigious*, the *amorous*.

In the case of the first, the ideas of persecution end in an attempt at murder. The most dangerous are those whose delusions escape notice until the day when a murder attracts public attention. The skilled physician, appointed to examine the murderer, often finds it most difficult to render the true mental state obvious; the newspapers exclaim that alienists see madmen everywhere, and that their whole science con-

sists in (sometimes) saving the guilty. The direct examination of the patient is often insufficient, for he dissembles with rare ability. All the acts of his life must therefore be carefully reviewed, his daily conduct must be thoroughly investigated, his manner of living must be well inquired into. His writings may be of great use for diagnosis—*verba volant, scripta manent*. The correspondence of reasoning persecutors is generally voluminous, and consists of begging letters, letters full of abuse or threats, endless demands and profuse pamphlets. We often find words traced in special characters, underlined with coloured ink, etc. Occasionally we meet with a special vocabulary (neologisms).

The sayings and doings of litigious persecutors, instead of ending in criminal prosecutions, culminate in civil law-suits. These are the patients described by Dr. Krafft-Ebing under the name of "querulants." They are liars, untrustworthy, endowed with a special aptitude for distorting the truth.

The amorous persecutors incessantly pursue the object of their passion. They spy on all his actions, frequently overwhelm him with burning declarations of love, and the objects of this amorous persecution are often obliged to apply to the police for protection.

3. *Alcoholic Delusion of Persecution*.—The persecuted, said Lasègue, seems to have more than one feature of resemblance to the alcoholic. But, he added, the more we study these two forms of delusion, the fewer are the points in common. If Lasègue were still alive, he would undoubtedly have modified his views. All alcoholics entertain ideas of persecution, but a certain number have delusions of persecution with special characteristics. Professor Ball has, in his course of lectures at the Asylum of St. Anne, directed attention to this class. "They have numerous and continuous hallucinations of hearing; they are surrounded by enemies; they dread imaginary plots, and sometimes they are able to point out their persecutors. But what specially distinguishes this alcoholic delusion is that it is essentially curable, and, if certain alienists have admitted that a considerable proportion of the persecuted could return to intellectual health, it is probably the alcoholics to whom, either wholly or in part, the result of these statistics is due." Professor Schüle, Physician at the Asylum of Illenau, also describes acute and chronic alcoholic delusions having the characteristics of the delusion of persecution. The acute

form, subsequent to an excess of drink, is cured after a few months. The chronic form, which is only met with in the advanced stages of intoxication, presents derangements of motility and sensibility, erroneous interpretations of sensory impressions, especially at night, hallucinations of hearing, sight, and touch, but the delusional ideas are rarely united into one logical system. Premature dementia soon becomes complete, but transformation sometimes occurs with the appearance of ambitious ideas. There is, therefore, an alcoholic delusion of persecution with physical or mental characteristics. The physical characteristics (slight trembling, anæsthesia, partial convulsion, etc.) are passing symptoms of alcoholism. As mental characteristics we find frightful dreams, exaggerated terrors, subjective perceptions and even hallucinations of sight. These ideas of persecution are generally mobile, and disappear after a certain time. The symptoms gradually decrease, and often there is a cessation of the delusion which may pass for a cure.

The persecuted alcoholics are often inclined to suicide. I was called lately to attend on a patient who had poisoned himself to escape from his persecutors. This man, 52 years old, belonged to a respectable family, but had lately been addicted to absinthe. For some months he was under the impression that the passers-by looked cross at him or sneered while pointing him out. Then he heard someone speak under the floor of his room. These voices accused him of crimes, and threatened to have him thrown into prison. He attributed this to the persons living in the flat beneath him, and soon he fancied that his cook was in league with them to cause his disappearance. One morning, in terror, he swallowed the contents of a glass filled with copper solution and turpentine. When I saw him, a few hours afterwards, he told me about his persecutors and his anguish. But the hallucinations had disappeared. "I suffer too much," said he, "to hear their words; but if they recommence I shall jump out of the window." He had no occasion to carry out his project, for he died on the following day.

4. *Delusions of Persecution at the Climacteric.*—Delusions of persecution at the change of life present a rapid evolution; hallucinations of hearing are nearly always constant, and appear early; the disease quickly presents the symptom of double personality, and is in most cases incurable.

Dr. Savage has specially directed attention to a deafness

in both ears, which at first is hardly noticed, and which develops simultaneously with the hallucinations of hearing. It frequently begins with fits of dizziness, a symptom of the congestive state peculiar to this period of life. These persecuted individuals become suspicious without motive. They change their way of living, and avoid their friends. Sleeping little at night, they often get up, search their room and the neighbouring apartments. They often change their residence, and complain of their neighbours. To the hallucinations of hearing soon are added hallucinations of general sensibility, and finally psycho-motor hallucinations. People read their minds, steal their thoughts; their words are repeated as soon as they have been conceived. Double personality sets in. To the voices of enemies are joined the voices of friends, who take up the defence of the patients. These persons are victims of obsession and possession. It is in this class of patients that we find the witches of the Middle Ages, those possessed by the devil, and those led in imagination to the witches' sabbath. Dr. Séglas has, within the last few years, collected a considerable number of observations on this subject. The devil still holds sway over certain weak or backward minds, but he is generally dethroned by magnetism, electricity, and the telephone. Certain persecuted patients imagine themselves to have become the tool, the slave, of such or such an individual. Dr. Séglas mentions an instance of a woman who believed herself possessed by five priests; one of them was in her head, one in her belly, one in her stomach, two in her throat; they dictated to her the acts of her life. In 1884, when I was resident physician at the Hospice de la Salpêtrière, I had under observation a female patient, 44 years of age, who was just in the beginning of her delusion of persecution, and whose clinical history is as follows:—

A. B. C. had a strongly-marked morbid heredity; her maternal grandmother and one of her aunts had been deranged; her father, a very nervous man, had died of consumption; her mother had always exhibited an irritable and intractable character. Until the age of forty-three the patient did not present any morbid symptoms, except rather frequent returns of facial neuralgia. For the last few years, she said that she had seen lights appearing which again immediately disappeared; this was, according to her, a sign of prosperity; if, on the contrary, a sudden shadow appeared before her, some misfortune was imminent. In the night of the 1st of July, 1883, she saw her room

crossed by luminous rays. The following nights she could not sleep, and felt electric shocks in her limbs. She heard cracking in the furniture, stones falling down the chimney, and taps at the window panes. In the night between the 13th and 14th of July she heard a voice, that of her Father Confessor, the Abbé G—; but it was not he. It was the Abbé P—, Vicar-General of Rheims, who borrowed this voice to speak to her. At this period she still believed that the voices wished for nothing but her welfare. She no longer remembers the words spoken to her during this night, but she does remember that she answered, "Well, we shall have to get married." This reply drew down upon her violent reproaches. From that moment the voices continued to make themselves heard. On the 16th of August she left Rheims, in obedience to their command, at six o'clock in the morning, and visited Our Lady of Liesse in order to pray; she returned to Rheims the same evening. At the moment when the train passed before a place called The Mill of Betny, the voice said to her, "You shall not go further." These words remained on her mind, and on the following day she entered on the same journey, but on foot. On passing before the tomb of Monseigneur G— she was obliged to remain two hours motionless and without sitting down. Then she repaired to a chapel right opposite the grave and remained there two hours more without being able to move. Seeing that she was looked at, she imagined that she was taken for a thief, and, upon command of the voice, set out again on her way. She walked straight on as far as the Mill of Betny, and then she wanted to stop. But the voice commanded her to continue her way, forbade her any rest, and conducted her by different ways. The persons whom she met immediately guessed where she wanted to go to, and pointed out the way for her. Night having surprised her in the open country, she slept in an inn, and set out again on her journey on the next day. She arrived at the station of G—, and then the voice gave her leave to take the train to Our Lady of Liesse. She returned to Rheims on the following day, and stated that all her neighbours looked at her with curiosity. On the 9th of September she was forbidden by the voice to leave her room, and for nine days she satisfied her hunger with one loaf, for she was not allowed to open the door for anyone. The chief of the police, called by the neighbours, ordered the door to be opened. On the 1st of October she attended a novena in honour of Saint Remi. At this moment she heard different voices, and found that they belonged to priests. It was a synod, in which she was chosen to perform a religious mission, of its purport she was ignorant. One voice rose and was opposed to having the mission entrusted to her. That voice was the voice of the Abbé P—, Vicar-General.

In the course of the month of December, being at confession, the patient for the first time became aware that she was persecuted; until then she thought that the commands which she received had no other

aim but the good of religion. The Abbé P—, hidden in the confessional, answered through her mouth. From that day she ceased to go to confession.

In Passion week of 1884, that is to say in the last days of the month of March, not knowing how to get rid of the obsessions of her persecutor, she decided to apply to the Archbishop of Rheims; and she succeeded, in spite of the stubborn resistance of the Abbé P—, who deprived her of the remembrance of words, in writing a letter in which she exposed the persecution of which she was the object. In consequence, that very evening the persecuted woman's mind became more active. Three days after, on the eve of Palm Sunday, at the moment when she was going to visit the cemetery, she passed near the mortuary, the gate of which was half open, and perceived a great black shadow dressed in a soutane. She guessed that it was the Abbé P—, who was waiting to kill her; she hurriedly turned back and barricaded herself in her room. Only two days later she decided to go out to visit the cemetery, and to cover her parents' grave with flowers. In the cemetery she was compelled to look around her incessantly and to blow in the same direction as she looked.

On the following day, at two o'clock in the morning, an hour in which these persecutions became especially violent, she felt herself warned to watch the door which the Abbé P— intended to force. She got up, and for four hours held on to the key, which she saw being turned in the lock as soon as she left it one second. That very morning she had a new lock put on, and an iron bar put through the ring of the key; but every night the Abbé P— continued to bang the door, and she heard steps on the staircase.

Determined to put an end, in some way or another, to these perpetual anxieties, she repaired to the chief of the police, and afterwards to the Archbishop of Rheims, who advised her to leave the town and to go to Paris. She arrived in Paris on the 15th of April, but the Abbé P— did not cease to persecute her.

Her family, uneasy about her, caused her to be placed in La Salpêtrière, on the 1st of May, 1884. For the first six weeks the patient spoke little, she had no right, she said, to reveal what was going on within her. Then she related the persecutions of which she was the victim.

On the 1st of July she entered the infirmary, and in the course of the night felt great pain in the abdomen; it was the Abbé P— who wished to force her to have her menses.

About the end of September she announced that the persons who were well disposed towards her were triumphant, the Abbé P— had lost his power, and he was *morally* bound to die on the 12th of October. The persecutions gradually decreased in intensity in proportion as the Abbé P— was dying; finally on the date fixed the persecutor had ceased to live.

For a few days the patient had no longer any hallucinations, and

was at last able to pray, which she had been unable to do for a long time. Only one thing tormented her; she had darts and shoots in the belly, which she imagined she saw increase in size from day to day. She understood that, during the night of the 1st of July, when she felt such excruciating pains in the abdomen, she had become *enceinte* by the Abbé P—.

In the last days of October the persecutor returned to life; he incessantly abused the patient, choked her, gave her shakings in all her limbs, and sent her pains in the womb to cause abortion.

I left La Salpêtrière on the 1st of October, 1885, and since that time have but seldom seen the patient. She used to receive me with pleasure, and relate the misdeeds of the Abbé P—.

Dr. Ségas, assistant physician of the Salpêtrière, in January, 1889, four years later, described her condition as follows:—"She has predominant hallucinations of hearing, but, side by side with the *attack* there is also the *defence*, and as the ideas of persecution, so also the ideas of defence are based upon hallucinations. The consoling hallucinations which appeared only a few months after the distressing hallucinations were at first, like the latter, perceived by both ears. Later on they became epigastric voices, but yet they were accompanied by a sense of hearing, which the patient distinguishes from the hallucinations of hearing that occurred in the beginning. It is probably like a kind of low voice. At the same time they were accompanied by very clear motor symptoms.

"There are some," she said, "which come and speak in the mouth and compel the tongue to move, but the mouth remains shut and no sound proceeds from it. I understand what the voices say by the movements of the tongue without pronouncing anything." At other times she pronounces the words in a low or even in a loud voice. Again, certain sounds of those conversing with her are expressed by her mouth, and when she speaks she distinguishes her voice from the others whose tone and accent are different. From some time back pure hallucinations of hearing are very rare, almost restricted to attack, and in the form of epigastric voices or by the mouth. But that is rare; most frequently, on the contrary, they prevent her from speaking. For a considerable time also, this patient has presented the phenomenon of the echo of thought. At present, although the ideas of attack still exist, and are very distinctly marked, yet it is defence which predominates, and to such an extent that the patient says she has triumphed, she is powerful, she wins the day. Now that she has been victorious in the struggle she will go forth sooner or later, and her history will instruct her fellow-sufferers. Let me add that during the last few months her intellectual faculties seem to become less clear; and the delusion is much less coherent."

I have to apologize for having reported the case at such length, but it fully and clearly sets forth the delusions of

persecution of the change of life, and it but rarely happens that one physician can follow the evolution of the disease from the beginning.

5. *Senile Delusion of Persecution.*—Senile delusions of persecution begin by symptoms of dizziness and congestion. The patients imagine that they are ruined, that they are robbed, that people want to kill them. They believe themselves the victims of all those who surround them, relatives and neighbours. They are possessed by fear, and, in this respect, may be compared to the sufferers from melancholia. They have numerous hallucinations of sight. They see ghosts, terrifying objects; there are phantasmagoria, figures passing along the wall. Are these hallucinations of peripheral or central origin? It would be interesting to solve this question, but numerous autopsies would be required. Dr. Christian, physician at Charenton, has observed in one of those patients hallucinations of sight which continued for five years, and which autopsy demonstrated to have been caused by a tumour of the pituitary gland, compressing the optic nerves.

Among the senile persecuted, some preserve their hallucinations and suspicions for a long time, others rapidly fall into dementia. I am at present attending a gentleman sixty-nine years of age, who, during his whole lifetime, had exhibited an imperious and difficult character, but whose intelligence had always been clear and precise, and whose conduct had been irreproachable. Twenty years ago he had an attack of apoplexy which left no apparent injurious effects, either physical or moral. For the last three years he has become suspicious, full of fear, not daring to remain alone; on the walls figures appear, making grimaces, and insects of different shapes. He refused to eat under the impression that his cook wished to poison him. One day he went out for a few minutes and disappeared for twenty-four hours. He was found trembling in the suburbs, and said that the car-drivers wanted to kill him. Since that time this idea haunts him; as soon as he hears the rolling of a carriage he imagines that the drivers want to get hold of him; he sees them invade the garden, climb through the window, and penetrate into the house. Dementia is now making rapid progress.

The senile persecuted often have ideas of suicide and want to kill themselves to escape from their persecutors, but these ideas of suicide are not the result of reasoning and are

not consistent. They partake of the senile form of the delusion.

B. Humble or self-accusing persecuted.—By the side of the proud or self-sufficient persecuted there are also the humble persecuted who confess themselves to be guilty. They are for the most part individuals of inherited morbid tendencies, presenting physical stigmata of degeneration, especially in reference to the genitalia. In general they have no hallucinations of hearing, but suffer from insane interpretations. They are guilty victims, differing in that respect from the proud persecuted, who are innocent victims. They feel anger against their persecutors, and even in a moment of exasperation may have recourse to acts of violence, but as a rule they cherish no real hatred, and they are rather despondent than aggressive.

If they have few hallucinations of the senses, they sometimes present hallucinations of general sensibility, and pretty often at a given period psycho-motor hallucinations which finally demonstrate the double personality. Drs. Ballet and Séglas have recorded several cases of this variety, which well merit attention, and which should not be mistaken for melancholia, with which, however, it has certain points in common.

In the case of the self-accusing persecuted the ideas of persecution are in general tenacious and persistent, with occasional periods of remission.

But between these two groups—the persecuted who are proud and the persecuted who are humble—one meets with intermediate cases. At the last meeting of the Société Médico-Psychologique of Paris, Dr. Séglas reported the case of a woman who had been during a long period humble, anxious, and self-accusing, and who had made several attempts upon her own life; and who afterwards became self-sufficient, inclined to suspect others, and aggressive.

I conclude by begging you to excuse me, gentlemen, if I have abused your patience; but I was anxious to ascertain your opinion on this important question, hitherto merely outlined. I shall be grateful to you if you will spare me neither your advice nor your objections. Mental science cannot but gain by public discussion, especially when the speakers belong to the Medico-Psychological Association of Great Britain and Ireland.

Dr. NICOLSON, in speaking to the paper, said it would be a mistake for anyone to attempt to hastily criticize the paper which Dr. Semelaigne had taken so much trouble to compile, and in which he had placed before the meeting, in

excellent language and clearness, experiences which had fallen within his sphere of work on this particular subject. Therefore he (Dr. Nicolson) would merely mention one or two suggestions and points that had occurred to him during the reading of the paper. The first of these dealt with actual cases where violence had been committed, and which had come under his own observation at Broadmoor. A remarkable difference exists in the number and character of the cases on the male side as compared with those amongst the women. The number of homicides in Broadmoor amounts to about 340. The proportion of cases of homicide is, for the whole population, 53 per cent., for male inmates alone 43 per cent., and for female inmates alone 82 per cent. But, curiously enough, in many cases the homicidal act amongst the women is preceded, not by delusion of persecution, but rather by an anxious and insane melancholy which results in the homicidal act being committed from motives of kindness. Dr. Nicolson said he would not enter into the history of that, more than to say that it is a feeling which anyone may recognize as occurring to friends on the approach of death, and their consequent severance from some pet horse or dog. We can understand such an one at the last saying "Rather than that my pet should be ill-treated by those into whose hands it may fall I'll kill it myself, or leave instructions for it to be killed." And so the insane woman, crushed by a feeling that she is condemned to all eternity, and that her child will come to a bad fate—the workhouse or the gaol—deals with it as an ordinary sane individual would sometimes do with his horse or his dog from the best possible, or at all events from kindly motives. On the other hand, amongst the men there can be no doubt that delusions of persecution are present in a very large number of cases. And then, passing from that, one might refer to what one might briefly term the drink cases. Dr. Nicolson's experience was that there are three forms where drink has been the means of inducing homicidal results as the outcome of mental derangement. Firstly, there are cases of delirium tremens resulting from mere alcoholism—excessive use of intoxicating drinks. Secondly, there are those cases where, with some existing insanity or predisposition to insanity, chronic drinking and toying lead to delusions of persecution and to morbid suspicions. Thirdly, there is the group which has not been very extensively worked out, and they are those where for a considerable time some delusions of persecution have been presenting themselves in an ordinary melancholiac—where the individual has had enough strength of mind left to restrain himself from acts of violence, until a comparatively slight indulgence in alcohol (often "to keep him up," as the friends say, when he has been refusing his food) terminates his capacity to control himself, and brings about the violent or the homicidal act. These are classes which exist, and which it might be worth while to take up and work out. The only other point referred to by Dr. Nicolson dealt with the cases where there is distinct evidence of the *growth* of delusions in sane people, the most typical examples of this being those instances where our public servants fancy that their merits have been overlooked, and develop a grievance which ultimately upsets their mental balance in a sort of monomaniacal form. And this has in quite a number of cases become a monomania with distinct and definite ideas of persecution. I am quite sure we are all very grateful to Dr. Semelaigne for his paper, and it suggests so many things that one can only regret that time is so limited.

Dr. CLOUSTON—I am sure that we are very much indebted to Dr. Semelaigne for his paper. It is upon a subject which we have not discussed sufficiently in this country—not so much, certainly, as in France. The only remark I have to make is in regard to the pathological basis of "suspicion." When we come to inquire into the pathological condition of the brain we shall find that nearly all these cases of morbid suspicion are attended by anæmic conditions. Where there are paralysis and such gross lesions the notions of persecution are not so common. If we look, on the other hand, to exhausted brains and syphilitic brains in the second stage, where there is a certain

amount of syphilis of the arteries, etc., we shall find that these delusions tend to prevail. Also in chronic alcoholism we know that in most cases they are not liable to morbid suspicions. Where you have a certain amount of degeneration of the blood forming glands and capillaries the man tends to be suspicious and sometimes to commit crime. One always inclines to hold that any brain developing suspicion is an anæmic brain. We must remember that suspicion is a protective instinct. These delusions are a mere exaggeration of a necessary mental quality. In regard to Dr. Semelaigne's introductory remarks about degeneration, I think that perhaps we are in danger of using the word degeneration to cover nearly everything. There is a little French book recently published in which the word "degeneration" is scattered broadcast. It covers mental, moral, and physical defect, from original sin down to complete dementia.

Prof. BENEDIKT—A persecutory insanity does not exist. The sentiments and ideas of persecution are present in all forms of insanity, and also in healthy life, and they have some importance, primary or secondary. In the question under discussion, the expression "degeneration" is used in a special sense—in the sense of Magnan. In this form the persecutory delusions have a special and extreme importance.

Dr. ATKINS—I think that the most important of Dr. Semelaigne's remarks is the differentiation of the various types of persecutory delusion. Now, in this country, as Dr. Clouston has remarked, we have not sufficiently investigated the various forms of persecutory delusion; but still I don't think that we see the same number of forms of this disturbance as is witnessed in France and on the Continent. At the same time, we will find, I think, that in this country there are special types of this form of persecuting delusion. Recently I have been interested in reading the remarks made at a meeting of the French Psychological Society, and I have observed several cases which I believe bear out the view that this form of persecutory delusion is really an entity in itself. I have known a senile case in which the delusions developed till he arrived at the higher type of negation, and denied his own existence, the functions of his body, and everything. Unfortunately, I was unable to examine his brain after death. I have also at present a patient who imagines that invisible foes are tearing out his hair and plucking him by the nose, and he hears their voices distinctly. It is a perfectly organized delusion, and will last during life. But in this country we see cases where recovery follows more rapidly than in the degenerate forms. I entirely agree with Dr. Clouston when he says that they are the outcome of anæmia, and where that anæmia leads to a general degeneration of the brain itself, and where it produces such conditions of degeneration as to perhaps lead to permanent dissolution. But whether there are such types in this country as Dr. Semelaigne described is extremely doubtful. If a person examined a brain under a microscope I don't know whether he could distinguish between that of the sufferer from negative delusion and that from persecutory delusion.

The PRESIDENT—I think we are extremely indebted to Dr. Semelaigne for the full and able paper with which he introduces this discussion. I observe with satisfaction that he seems to differ from Magnan as to the existence of that form of insanity which has been described as chronic delirium. This, as Dr. Semelaigne has told us, consists of a condition which is supposed to begin with persecutory delusions, proceed to ambitious delusions, and end in dementia. Such cases, indeed, one has been accustomed to see from time to time. But the result of my observation is entirely in accordance with Dr. Semelaigne's—that they do not constitute a distinct type. As the persecuted lunatic breaks down and becomes imbecile he is very liable to exaggerate his own importance and acquire delusions of an exalted type. I think it is not possible to divide the forms of insanity into the number of very distinct classes which some of our Continental brethren are inclined to adopt. Cases may be regarded as types—sometimes

very remarkable and distinct, yet melting into each other, and not really to be described as separate entities. Dr. Atkins has spoken of forms which we see in this country of persecutory insanity of brief duration. This is no doubt the same form which is described by some German writers as *Wahnsinn*. It was not acknowledged a few years ago as an acute form of disease, but now it is clearly and generally recognized. There is a point I should like to dispute with Dr. Clouston, namely, his notion that the condition of persecutory delusion depends upon *anæmia*. He has distinguished between the condition of a man suffering from acute alcoholism and one suffering from arterial degeneration resulting from chronic alcoholism. But I don't know whether a man suffering from alcoholism can get a sufficient supply of blood to the brain at any stage. His brain may, indeed, contain a quantity of blood, but not of proper quality, and I question whether his cortex is not *anæmic* in the strict and physiological sense of the word when he is in a condition of acute alcoholic excitement. When the blood is laden with poison it fails to nourish his brain as it ought. Thus the thing is not so simple as it seems, and the problem is not to be disposed of in this off-hand way. Besides, there is another point quite against the *anæmic* theory. These conditions of persecutory delusion are generally of life-long duration. Now, having ventured to dispute Dr. Clouston's judgment in these matters, I am anxious to express my agreement with him in much of what he says about the abuse of the word "degeneration." We owe a great debt to the French school of Morel and many of his followers. But I think in France, and also in Italy, the subject has gone far beyond reasonable limits. Dr. Clouston has spoken of Dr. Féré's book. Well, it is moderate, and Dr. Féré is a scientific writer. But the tail of Morel's school has gone great lengths in absurdity. One of the most amusing books I have read lately is that of Max Nordau, "*On Degeneration*." In it all the gods of modern idolatry—novelists, poets, painters, sculptors, and musicians—are described as degenerate. The delighted Philistine hears that Wagner is degenerate; that Oscar Wilde, of whose success in the Metropolis his hungry countrymen over here are justly proud, is degenerate; that the odious Tolstoi is degenerate; that the more odious Ibsen is more degenerate; and that the miserable Zola presents not only the moral, but the physical signs of degeneration. Well, this is all very amusing, and delights the Philistine. I read the book with great enjoyment, for I am a Philistine of the Philistines; but as a scientific work I am afraid it is a failure.

Dr. ROHÉ said—I fear that some of the remarks of Dr. Semelaigne have not been taken in, as we say at home. In the first place, as you remark, since we have come to study these cases, which have been brought to our notice by the French school, we know a great deal more than we did before about particular cases. Except in a general way, I did not gather that Dr. Semelaigne intended to set up separate classes by his description—his very admirable description, as it seemed to me—of the cases that have come under his notice. I was especially interested in his division of senile persecution, because we have been in the habit of simply classifying all those cases as cases of senile dementia; and, having been unable to place them under an ordinary classified description, I have got a good deal of light from him upon that point. I have been a good deal interested by Dr. Nicolson's description of the number of homicides among the women under his care. The remarks, Mr. President, which you made about degeneration seem to me to be a little extreme. It is just as you understand the use of the word. Both of us seem to consider and understand degeneration in a different sense from that in which it is used by Dr. Semelaigne and the French writers generally. Degeneration is usually used as something coming from "original sin," or inheritance, and degeneration, as Dr. Clouston uses it, is applied to cases resulting from alcoholism or syphilitic disease of the brain. There are, therefore, two uses of it. But there ought to be something of unanimity in our views when we understand what we mean by the words we use.

On the Alleged Increase of Insanity in Ireland. By THOS. DRAPES, M.B., Resident Medical Superintendent, District Asylum, Ennis corthy.

The question of the increase of insanity in Ireland is, of course, but a part of the much larger question, the increase of insanity generally, all the world over. But there is one peculiarity about Ireland which has been repeatedly noticed, of which, as yet, no adequate explanation has been forthcoming, namely, that while in other countries insanity has increased along with, and in a higher ratio than an increasing population, Ireland alone of all civilized countries, so far as I am aware, possesses the unique and unenviable distinction of a continuously increasing amount of insanity with a continuously decreasing population; and, what would appear to be an almost necessary consequence, the proportional rate of increase in Ireland is far beyond what exists elsewhere. The aim of this discussion then, it seems to me, should be directed not so much towards explaining such increase in insanity as Ireland shares in common with other countries, as to an endeavour, if possible, to account for the preponderance, or the assumed preponderance, of insanity in Ireland over that of other countries.

Apparent Preponderance of Insanity in Ireland.

As to this apparent preponderance, it scarcely needs to be demonstrated, as it must be patent to everyone who makes even a superficial study of lunacy statistics. But it will emphasize the fact, and give definiteness to our ideas, if we compare the sister country with our own. If we take the 30 years from 1859 to 1889 we find that in England the ratio of total lunatics to population increased in the first decade by 526 per million, in the second by 361, and in the last by 211,* denoting a very large diminution in the rate of increase. On the other hand, if we take a similar, though not exactly corresponding, period in the case of Ireland, viz., 1861 to 1891, we find that the ratio of lunatics increased in the first decade by 600 per million, in the second by 510, and in the last by 940.† So that while in England the rate of increase during the period mentioned

* 47th Report of Commissioners in Lunacy, 1893, p. 11.

† Inspectors' Special Report on the "Alleged Increasing Prevalence of Insanity in Ireland," Feb., 1894, p. 17.

fell continuously from 526 to 211 per million, or to considerably less than one-half, in Ireland it rose from 600 to 940, an advance of over 50 per cent.—a truly remarkable difference.

Again, let us take a somewhat different period, with respect to which we are in possession of more detailed and reliable statistics. In Dr. Hack Tuke's valuable paper on the "*Alleged Increase of Insanity*," published in the April number of our Journal of this year, he contrasts the relative increase in the number of *certified* lunatics and idiots in asylums or in single charge in England and Wales, with that of the *total number*, including those in workhouses, during a given period, 1871 to 1893. He finds that during the first five years of this period the proportion of certified lunatics averaged, in round numbers, 16 per 10,000 of the estimated population, whereas, during the last five years, the average was 21 per 10,000, being a rise of 31 per cent. On the other hand the ratio per 10,000 of total insane rose during the same period from 25 to 29, being an increase of only 16 per cent. From these figures Dr. Tuke draws the conclusion, which I think no one will dispute, that the difference between these two percentages of increase, viz., 31 per cent. in the case of certified, and 16 per cent. in the case of total lunatics, "*merely indicates the shifting of a mass of uncertified lunatics to asylums;*" and he addresses himself to the task of accounting for the increase of 16 per cent., which is not explicable by the mere transference of a portion of the insane population from one condition or location to another.

Now, applying the same method of investigation to the case of Ireland, we find that during the first quinquennium of the period dealt with by Dr. Hack Tuke (1871-1893) the proportion of insane in asylums averaged in round numbers 15 per 10,000 of estimated population (Table I.), while during the last quinquennium it averaged 26 per 10,000, being an increase of very close upon 75 per cent. The ratio of total insane during the same period, (taking, similarly, the average for each quinquennium), advanced from, in round numbers, 33 to 45 per 10,000, denoting a rise of over 34 per cent. (Table II.). Comparing, then, the two countries, we find that during a similar period the increase in the ratio of certified insane in England has been 31 per cent., while that in Ireland has been 75; while the rise in the ratio of total insane in England during the same period has been

but 16 per cent., as compared with 34 per cent. in Ireland. Such a condition of things it is impossible, at first sight at any rate, to look at with anything like feelings of equanimity. And the problem we have to try to solve is—are there any special circumstances connected with insanity in Ireland which can explain, or help to explain, such an exceptional state of things as is brought to light by the foregoing figures.

We may safely assume, I think, as Dr. Hack Tuke has done in the case of England, that the difference between the increase of 75 per cent. in the case of certified, and 34 per cent. in the case of total lunatics is due to the transference to asylums of a large number of the uncertified class. This view is borne out by the census statistics for the years 1861, 1871, 1881, and 1891. A reference to these (Table III.) shows that the percentage of lunatics at large to the total number fell from $22\frac{1}{2}$ per cent. in 1861 to 6 per cent. in 1891, whereas the percentage of lunatics in asylums rose from 65 to 75 per cent. Similarly the percentage of idiots at large fell from 80 to 65 per cent., while that of idiots in asylums rose from 5 to 15 per cent. during the same period. We may therefore take it as proved that the larger portion of the increase of 75 per cent. in the case of certified lunatics does not denote any increase whatever in the amount of lunacy, but merely a change in *locale* of certain classes of the insane population.

Disregarding, then, the amount of apparent increase due to this cause, there remains the smaller, but still formidable, increase of 34 per cent. to account for. Taking up again the period 1871 to 1893 we find that in 1871 the proportion of total lunatics and idiots in Ireland was, in round numbers, about 32 per 10,000 of population, as compared with 25 per 10,000 in England; whereas in the case of certified lunatics England had a higher ratio than Ireland, the numbers being 16 per 10,000 in England and 14 in Ireland (round numbers) (see Tables I. and II.) This alternative preponderance may, I think, be explained by the fact that adequate asylum accommodation for the insane was provided at a much later date in Ireland than in England. At the time of which I am speaking a number of the district asylums had been opened only within a comparatively recent period, and it may be supposed that their advantages had not yet been fully appreciated and utilized. From this date, however, the number of patients in these asylums steadily increased,

but not for twelve years after did it reach the proportion of those in English asylums, and in the year 1884 for the first time Ireland outstripped England in this respect, and she has been forging ahead ever since. We may conclude, then, that some time during the year 1883 the ratio of certified lunatics, or practically of the insane in asylums, was the same in the two countries, and if now the ratio is found to be much higher in Ireland than in England it is clear that this must be due to the operation of one or more of three causes in the former country, viz., (1) a higher admission-rate; (2) a lower discharge-rate; (3) a lower death-rate.

In Ireland the term "increase of insanity" may be regarded as equivalent to increase in the number of insane in district asylums and in workhouses.* Unfortunately there are no available records of the admissions of insane into workhouses. All we know is that the number of insane in workhouses, uncertified of course, has increased from 494 in 1851 to 2,787 in 1891, and the idiots from 1,129 to 1,170 during the same period.†

Higher Admission-rate in Ireland.

Coming now to the admissions, if we take the period 1868 to 1892, and divide it into five terms of five years each, we find the *total admissions* annually into district and private asylums in Ireland during the first quinquennia averaged 4·7 per 10,000 of population, and the four succeeding quin-

* The number of insane in private asylums varies hardly at all. Twenty years ago, ten years ago, it was almost the same as it is to-day, and if anything it is decreasing. The admissions into private asylums have altered so little during the past twenty years that the average annual admissions during the first quinquennium were 0·34 per 10,000 of population, and during the last 0·33. I have thought it better, however, to include them, as they make a slight but perceptible difference in the proportion of admissions to population.

† As regards the idiot population there is one remarkable incident revealed in the census tables. In the year 1861 the number of idiots in asylums is stated to have been 403, and to have been 410 in 1871, a rise of only seven; but in 1881 the number had risen to 1,896, that is to say, it had more than quadrupled itself. During the same decade the idiots in workhouses nearly doubled in number, having risen from 1,183 to 2,195. The total increase in asylums and workhouses, in fact, from 1871 to 1881 amounted to 2,498, while the idiots at large were only reduced by 599, leaving a margin of just 1,900 idiots sent into asylums and workhouses, whose origin must, I fear, remain a matter for speculation. During the last decade they have been reduced by nearly one-half, 996 being returned as in asylums and 1,170 in workhouses. Such abrupt changes in the numbers can hardly, I think, be held to indicate a sudden outbreak of idiocy, or an equally sudden extinction of a large mass of existing idiocy, but rather an uncertainty in the application of the term idiot on the part of those who made the returns.

quennia give averages respectively of 4.5, 5.0, 5.9, and 6.7 (Table IV.), the rate of increase in the last over the first being 42 per cent. Now, if we compare England with Ireland in this respect we find a remarkable difference. I have taken Tables C and D from Dr. Hack Tuke's paper in the *Journal of* October, 1886, and continued them down to 1892, so as to cover the same period dealt with in the case of Ireland, and have divided it into corresponding periods of five years, which, of course, do not coincide with those selected by Dr. Hack Tuke (Table IVa), but this is immaterial for the purpose in hand. Table C shows the total number of admissions into asylums or single houses in England and Wales, and from it we find that the average annual number of admissions was, for each of the respective quinquennia, 5.221, 5.887, 5.876, 5.837, 6.416 per 10,000 of population, the rate of increase in the last over the first quinquennium being 22 per cent. Dr. Hack Tuke's Table D gives the number of total admissions, less transfers, and I have embodied it in my Table IVb, extending it up to the year 1892. The numbers for 1868 are not given, so that the first division comprises but four years instead of five. The average annual admission-rate for each of the periods included in this table was 4.701, 5.196, 5.276, 5.198, and 5.630. The great difference, then, between the two countries as regards total admissions is, that in Ireland, although there was a slight fall in the ratio of admissions in the second from the first quinquennium, and although there may be an occasional fall if we compare one individual year with another, if we make our comparison between successive groups of years, starting from the second, the advance is continuous all along the line; whereas in England, when similar periods are compared, we discover oscillations of such amplitude as almost to merit the term violent. If I may use the language of metaphor, in England the changes occur in waves, in Ireland only in wavelets. As the fluctuations are far more noticeable when transfers are included we must suppose that they greatly depend upon the transfers. But even when transfers are excluded, the English table differs very decidedly from the Irish in the extent and character of its fluctuations. What this extra mobility in the English admission-rate may mean I am at a loss to say, and can only suggest that, England being "a nation of shopkeepers," it may possibly have some connection with a buoyant or depressed condition of things in the mercantile world. Dr.

Rayner* has drawn attention to the probable influence of the 4s. Government Grant, which came into operation in 1874, in increasing the admissions in England. But when the transfers are excluded no very obvious effect is to be observed. The chart of admissions, excluding transfers, shows one complete wave between the years 1873 and 1885, comprising a rise, a crest more or less broken, and a fall. But the greater part of the rise had occurred before the 4s. grant could be supposed to have had any effect, viz., before 1875. For the next eight years there can hardly be said to have been any rise worth mentioning, and from 1883 to 1885 there was a very pronounced fall, while from that year there is a progressive rise up to 1892. The case is far different as regards Ireland, where the line of increase, with the single exception of a slight fall in 1877, forms an unbroken ascent from 1875 to 1885. There is, therefore, much more ground for the suggested inference in Ireland than in England.

But according to our highest authorities the only true criterion of the increase or decrease of insanity is to be found in the number of *first attacks*. Now, I am not sure whether it is the case in England, but in Ireland I think the large majority of what are entered as first admissions are also cases of first attack, and if we assume that they are all so, as we must in default of more complete records, we shall at any rate get an approximate estimate not, probably, very wide of accuracy. Taking the same period 1868 to 1892 we find that during the first quinquennium the first admissions into district and private asylums averaged 3·9 per 10,000, and in the last 5·2, a rise of 32 per cent. But the rate of increase differs in the respective quinquennia. There was a decrease of 5·4 per cent. between the ratios of the first and second period; an increase of 9·5 per cent. in the third, of 14·8 per cent. in the fourth, and of 11·1 per cent. in the last. The rate of increase has, therefore, diminished in the last as compared with the previous quinquennium, which is so far satisfactory.

If now we take the English ratios of first admissions to population as given by Dr. Hack Tuke (Table D, "Jour. Ment. Sci.," Oct., 1886, and Table III., *Ibid.*, April, 1894) for the same period, 1868 excepted, we find that the ratio rose from 4·134 in 1869 to 5·118 in 1892 (Table Va). Or, if the quinquennia are compared (the first period being only four years) the rise is from 4·072 in the first period to

* "Brit. Med. Journ.," 25th Nov., 1893.

4·891 in the last, an increase of 20 per cent., as compared with 32 per cent. in the case of Ireland. The interval between the respective rates of increase in the two countries is thus seen to be much less wide than in the case of total admissions. In England, in fact, the difference between the rates of increase in total and in first admissions is comparatively insignificant, while in Ireland it is of considerable magnitude. The increase in the ratio of total admissions in England in the last, as compared with the first, quinquennium of the period under review is 22·8 per cent., or, if transfers are excluded, 19·7. In the case of first admissions it is a little over 20 per cent. In Ireland, on the other hand, the increase in the ratio of total admissions was 42, while that of first admissions was but 32 per cent. The plain inference deducible from these figures is that the proportion of readmissions in Ireland must be much larger than it is in England.* This enormous increase in readmissions mainly, if not fully, accounts for the great difference in the rate of increase which was found to exist between the two countries as regards the total admissions. Moreover, if we compare the ratios per 10,000 of first admissions we find no very great difference. Thus during the first three quinquennia the ratio in Ireland was a little lower than that of England; in the last two it was a little higher. In the last, for instance (1888-1892), Ireland was 5·230, and England 4·891, a difference of only 0·3 per 10,000. But, lastly, in Dr. Hack Tuke's table of first admissions, removals from workhouses to asylums are not included; in the Irish tables they are. And if these are deducted from the total first admissions in Ireland it reduces the ratio of the last quinquennium to 4·585, or 0·306 per 10,000 under that of England. So that as regards the rate of *occurring insanity* in the two countries it would appear that the Irish rate is not over, but is probably somewhat under the English rate. Admissions from workhouses to asylums in Ireland have greatly increased in later years. Thus, in the last quinquennium, there was an increase of 18·72 per cent. in total admissions from workhouses (see Table III.) over the number in the preceding quinquennium, the first admissions

* And this is, in reality, the case. Taking the average for the last five years (1888-1892) I find that in England the readmissions formed but 13 per cent. of the total admissions (excluding transfers), while in Ireland they were 22 per cent. And if we take the twenty years (1873 to 1892) and compare the last quinquennium with the first, we find that the total admissions increased by 34 per cent., first admissions by 27½ per cent., and readmissions by 64½ per cent.

showing an increase of 10·33, and the readmissions an enormous advance of 63 per cent. Of 3,328 readmissions into district asylums during the period 1888-1892 there were 424 from workhouses, or about one-eighth of the entire number.

Age Distribution of Admissions.

This has an important bearing on the question. If we divide the ages of those admitted during the period 1873-1892 into three classes, viz., those under 20, from 20 to 60, and over 60, we find, comparing the last with the first quinquennium, that the proportion of patients under 20 years of age to the total number admitted fell by 8·48 per cent. (Table VIII.); that of patients between 20 and 60 remained practically stationary, there being a very slight increase of 0·83 per cent.; while in the case of patients over 60 there was a rise of 13 per cent. If we take the absolute numbers the first class increased by 23, the second by 35, and the last by 51 per cent. The proportion of cases over 70 to the whole number advanced by 18½ per cent., or if the absolute figures are taken the rise was close upon 60 per cent. The proportion of juvenile cases has, therefore, decreased, while that of senile cases has largely increased. The transference of a large number of senile imbeciles to asylums both from their own homes and from workhouses in later years has swelled the number of admissions, and contributed not a little to the apparent increase of insanity in this country. The greater number of cases over 70 years of age can hardly be regarded as insane in the proper sense of the word. They are merely persons in whom, while otherwise frequently possessing sound organs and a healthy constitution, the process of natural decay is initiated in their brains, and shows itself by mental failure or total breakdown.

Lower Discharge-rate in Ireland.

As regards the discharge-rate, we find that it is considerably higher in England than in Ireland. During the quinquennium 1883 to 1887 the total discharges in Ireland were 59·26 per cent. of the admissions; in the last quinquennium they were 59·94, a rise of hardly more than one per cent. (Table VI.). In England the corresponding figures were 61·13 and 63·46, a rise of over 3 per cent. Analysing the

discharges, we find that the recovery-rate in Ireland keeps a very constant advance over that of England of one per cent. on admissions. For instance, in the first of the quinquennia just mentioned the Irish recovery-rate was 41 per cent. and the English 40; in the last the Irish was 40 and the English 39; and for the whole decade the Irish rate was 40·7 and the English 39·7. So far as regards the recovery-rate, then, it can have no effect in producing the apparent preponderance of insanity in Ireland; the only possible influence it can have is in the opposite direction.

In the rate of discharge of the not-recovered, however, England is ahead of Ireland. And the rate is increasing in England at a more rapid pace than in Ireland. The average of these discharges increased in Ireland during the past ten years from 18 per cent. on admissions in the first quinquennium to 19½ in the second. In England it rose from 21 to 24. For the entire decade the discharge-rate in Ireland of the not-recovered was only 18·8, as compared with 22·6 in England. We learn, then, from these figures that the excess of total discharges in England over Ireland is altogether due to the larger number of unrecovered insane discharged in England. But there is one thing to be remembered with respect to the English statistics, that while the admissions exclude transfers the discharges include them. Had we any means of knowing how many of the unrecovered discharged were transferred patients, and were to deduct these from the total of not recovered, the discharge-rate might not be found to differ so much in the two countries. For this reason in considering this question I should not be inclined to lay much stress on the relative discharge-rates in English and Irish asylums, remembering, however, that if the difference in this respect which I have shown does exist has any influence it must be in the direction of increasing the apparent preponderance of insanity in this country.

Lower Death-rate in Ireland.

Coming now to the consideration of the death-rate, we arrive, I am inclined to think, at the most important feature in the whole question. The death-rate in English County and Borough Asylums, taking the average for the last five years, has been 10·21, that in Irish District Asylums only 7·8 per cent. on the daily average. If the English death-

rate had prevailed in Irish asylums during the past five years the deaths would have numbered 5,736 instead of 4,384. In other words 1,352 persons were alive in Irish asylums on the 31st December, 1892, more than would have been had the rate of mortality been the same as in English asylums. Now the number of patients in district asylums increased from 1887 to 1892 by 1,654, and if we deduct from this the number (1,352) that would have died over and above the actual deaths had the English death-rate prevailed, the increment is reduced to the comparatively insignificant one of 282 in a period of five years, or a rise of only 2·68 instead of 15·56 per cent., as it really was. It would appear, therefore, that the apparent preponderance of insanity in Ireland as compared with England is mainly, if not entirely, due to the lower death-rate in the former country.

As to the chief cause of the lower death-rate in Ireland, this can hardly be a matter of doubt. One disease, and one only, is common in England, rare in Ireland. I allude, of course, to general paralysis. In 1892 but 21 deaths in Irish asylums out of a total of 995 were assigned to this cause, hardly more than 2 per cent. In England, on the other hand, the mortality from this disease is very high, accounting for from 18 to 20 per cent. of the total deaths in asylums. So that if we were to say that the apparent excess of insanity in Ireland over that of England is due to the absence of general paralysis, the statement would probably not be very far from the truth.*

* Going a step farther, we may ask why in two countries in such close proximity this disease should be so prevalent in one, so conspicuous by its absence in the other. There is some difference of opinion, even among our highest authorities, as to what factor plays the most important part in the etiology of general paralysis. But I think all are agreed that the agents which induce it are to be found within a small group of causes. These include sexual excesses, syphilis, and alcoholism, with, perhaps, strain of mind superadded. In other words it is a disease believed to be intimately connected with, if not the direct product of a dissolute life. Some consider that alcoholism alone is sufficient to cause the disease. Against this is the fact that in Ireland we have abundance of alcoholism, and a large number of cases of insanity due to it, but scarcely any general paralysis. On the other hand syphilis is a comparatively rare disease amongst the rural population of Ireland, whereas it is common enough in the numerous large towns and cities of England. I wish to speak cautiously here, but when we find a certain disease prevailing to a large extent in one country, and one of its admittedly potent causes existing with it side by side, and when we find a notable absence of both cause and disease in an adjacent country, it does seem as if there was some very intimate connection between the two. Of the 21 deaths assigned to this disease last year in Ireland, 13 hail from the Richmond Asylum and six from Belfast; but syphilis

From a study of the comparative statistics of the two countries, then, the following facts, with certain conclusions based on them, may be elicited :—

1. That the number of insane in Ireland, both certified and uncertified, is far higher in proportion to the population than it is in England, and that the rate of increase in the amount of insanity has been much more rapid in Ireland. The much greater increase in the certified, as compared with the uncertified class, is due (as in England) to the transference of large numbers of the latter class to asylums.

2. That the ratio of total admissions to population has increased steadily during the past twenty years, the most notable and rapid advance having been during the period 1875 to 1885, being the first years during which the 4s. grant came into operation, and there can be little doubt that it had a very decided effect in increasing the number of admissions. Up to the year 1881 the ratio of total admissions was lower in Ireland than in England, but after that date it has been continuously higher in Ireland, and has advanced at a much more rapid rate than in England. This appears to be due mainly, if not entirely, to the far higher proportion of readmissions in Ireland than in England, along with a great increase in admissions from workhouses.

3. That the ratio of first admissions to population has also increased considerably, and this must be regarded as indicating a decided increase in occurring insanity. The rate of increase, however, is on the decline. That the difference between the ratios in England and Ireland is of no great magnitude, and that if removals from workhouses to asylums were excluded in the Irish tables, as they are in the English ones, the ratio of first admissions would be actually lower in Ireland than in England. The amount of occurring insanity may, therefore, be regarded as approximately the same in the two countries.

4. That while the recovery-rate is somewhat higher in Ireland, the discharge-rate of the unrecovered is considerably higher in England. This would have the effect of reducing the amount of accumulation in England as compared with

is a disease not unknown either in the northern or in the central metropolis. This leaves a balance of two deaths for the rest of Ireland. If the inference suggested by these facts be true, then, strange as it may appear, the apparent preponderance of insanity in this country may be said to be largely due to the virtue of its inhabitants.

Ireland. (Too much weight, however, should not be attached to this difference for the reason stated, the inclusion of transfers in the discharges from English asylums.)

5. That the death-rate in Irish asylums is much lower than in English asylums, and that this is pre-eminently the cause of a greater accumulation of chronic cases in Irish asylums.

The net result, then, of this examination is to show that, while there is an undoubted increase in occurring insanity, as indicated by the records of first admissions, by far the larger part of the apparent increase in insanity generally is due to accumulation, and that the seeming preponderance of insanity in Ireland, as compared with England, is fictitious, and depends entirely upon the greater amount of accumulation in Ireland, occasioned by the lower death-rate in that country, and (possibly) the lower rate of discharge of the unrecovered.

At the close of last year our Irish Inspectors were called upon to furnish a Special Report to Government upon the alleged increasing prevalence of insanity in Ireland. This they did in the spring of the present year, their report being based upon reports supplied to them by the Medical Superintendents of the several asylums in Ireland. The first of their conclusions, as stated on page 15 of their Report, is —

“That the great increase of the insane under care is mainly due to accumulation, and is, so far, an apparent and not a real increase.”

This conclusion is fully borne out by the statistical facts brought forward in this paper.

The second conclusion arrived at by the Inspectors is —

“That the yearly increase of admissions is drawn in a considerable proportion of the cases from the reserve of un-registered insane existing throughout the country.”

This, too, is corroborated by the figures I have given, and in particular by the great difference in the rate of increase of certified and uncertified lunatics respectively.

Their third conclusion is —

“That the annual increase, in the face of a shrinking population, of the number of first admissions, including, as it does, such a large proportion of first attacks of insanity, almost irresistibly points to some increase of occurring insanity in particular districts.”

The justness of this conclusion, also, can hardly be questioned. Sufficient proof of it is given in the table of first admissions I have drawn up. It is satisfactory that not altogether similar methods of investigation should lead to conclusions in such close agreement.

The question then remains, are we in a position to explain the increase in the amount of occurring insanity? This is the core of the problem, that part of it which possesses the greatest interest, not only for ourselves, but also for the public at large. They look to us for some explanation of the ever-increasing demand for fresh outlay for the support and treatment of an insane population, and if we are not able to give a completely satisfactory reply we are bound, at least as far as possible, to remove any misapprehensions they may have formed.

Insanity being the expression, the outward and visible sign of defect, derangement, or disease of the supreme nervous centres, it is not unreasonable to suppose that any influences affecting the nervous system generally would be reflected in its highest, most delicate, and most vulnerable part. Now, we have no means of ascertaining the actual amount of nervous disease of any and every kind existing at any particular period. But we can form an estimate, probably fairly accurate, as to whether such diseases are on the increase or not by comparing the mortality from nervous disease during any two periods (Table VII.). From a return kindly supplied to me by the Registrar-General I find that the deaths per million of population from diseases of the nervous system have increased during the last decade, as compared with the previous one, by just 20 per cent. This is exclusive of convulsions and of deaths in asylums, due to diseases of the nervous system, including insanity. It is not an unwarrantable inference that the increase in insanity is to a large extent but part and parcel of a general increase in diseases of the nervous system suggested by the mortality returns. The cause of this general increase is, no doubt, to be found in the influences of 19th century life and civilization, which bear hardly on the nervous system. The stress of modern life is, of course, more operative in large towns and cities, of which there are comparatively few in Ireland; and, the large majority of our insane people coming from rural districts, it may be argued that such an influence can have but little effect on a plodding peasantry. But if

the restless ambitions, the thirst for gold, the lust of power or distinction, which characterize the spirit of the age as it affects the dwellers in cities, can exercise but little sway over the minds of the tillers of the soil, still it has its effect upon them, not so direct perhaps, but none the less real. Steam and electricity have revolutionized trade, and all but annihilated distance, and, owing to the rapidity of intercourse and swiftness of transport which they have created, every commodity of the remotest region is brought daily to our shores, and distributed throughout the length and breadth of the land. The inevitable result follows, a lessening in value of all home produce. Prices dwindle, and profits fine away almost to vanishing point. No one can deny that for many years past the prevailing tone of agricultural life has been depression, often great depression, and nowadays it is admittedly no easy task to make a living out of this our chief national industry. And so modern civilization makes itself rudely felt in every Irish farmer's home. Add to this the almost constant political agitation to which our people are subjected, deeply arousing, as it does, the feelings of a naturally emotional race, and we surely have the ingredients for producing a large amount of mental excitement calculated to have prejudicial results. Mr. Lecky says somewhere, "Religion is the one romance of the poor." There is another which, as a vision of the future, haunts the mind of the Irish peasant. Rent abolished, his land and homestead for himself, and a Parliament in College Green, these make up the dream which fills his fancy. Disappointed often, but still not despairing, betrayed as he has often been, he still clings with a wonderful tenacity to the picture of an ideal Ireland which his imagination, aided by the eloquence of his political teachers, has fabricated. But the hopes, fears, and anxieties, the stirring up of emotions, some evil, some generous, engendered by this almost chronic condition of political unrest, can hardly fail to have a more or less injurious effect on a not over-stable kind of brain, and such as those who, like Gallio, care for none of these things, may find it a little difficult to realize.

Temperament and racial characteristics have, no doubt, much to do with susceptibility to mental derangement; and here the Irish are at a disadvantage. An excitable brain is an easily disturbed brain; and the quick-witted,

passionate, versatile, and vivacious Celt has, for those qualities which make him so charming, too often to pay the price of instability. Behaviour under the influence of stimulants is, more or less, a rough and ready test of cerebral stability. There is no need to delineate the characteristic traits of the typical Irishman when in his cups. His extravagant conduct, often brought on by a very moderate imbibition, shows how readily the functions of his highest centres are abrogated and the lower centres "let go." The late Dr. Lyons, of this city, when pathologist in chief to the British forces in the Crimea, made some interesting observations on the behaviour under chloroform of soldiers of various nationalities, a summary of which is given in "*Neligan's Medicine*" (p. 502, 7th ed.). A graphic description is given of the exhibition of all the phenomena of chloroformic excitement and its wildest demonstrations when administered to Hibernian Celts. Inhalation was stoutly resisted, and when partially effected soon gave evidence of its exciting and intoxicating effects by furious struggles, curses "both loud and deep," anger in one case, risible excitement in another, and finally a voluble outpouring of the native Irish, marked by the rich brogue of the southern or the harder clang of the northern Irishman. Now, what is the mania of the typical Celtic Irishman but this condition "writ large?" I cannot but think that the Celtic temperament lends itself more readily than that of other nationalities to disturbing influences on mental organization; and that the molecular arrangements of his highest cerebral centres surrender themselves more easily to the agencies that make for dissolution.

Of other causes which may contribute to the increase of insanity four are touched upon in the Inspectors' report—heredity, consanguineous marriages, innutritious dietary, and the immoderate use of stimulants. Heredity is rightly put first. But it is not easy to form any reliable conclusion as to whether this influence is progressively increasing or not. From the table of causes published in the annual statistics there is not much to be gleaned; but the individual reports of the medical superintendents throughout Ireland are almost unanimous in assigning a prominence to heredity over other causes. In Enniscorthy Asylum the cases in which heredity could be traced were 10 per cent. more in the last quinquennium than in the previous one.

But it is by no means certain that this indicates any progressive influence in this factor, as it may be due merely to a more complete registration of the fact of heredity in individual cases. The proportion of cases, for the whole of Ireland, in which heredity has part in the causation would appear from the table to be about 20 per cent. This is probably an understatement, and there is a very curious and wide divergence on this head in the returns made by the different asylums. For instance, out of 260 admissions into Cork Asylum in the year 1893, in but 17 are hereditary influences said to have existed; that is about one-sixteenth of the whole, or $6\frac{1}{2}$ per cent. In Waterford a return extending over a period of ten years gives a proportion of only eight per cent. On the other hand, in the Richmond Asylum over 30 per cent. of the cases admitted last year were hereditary, and in Enniscorthy just 50 per cent., while in Letterkenny they were as high as 70 per cent. These wide differences can, I think, hardly correspond with actual facts, and are probably due to the circumstance that in the table of causes in use in latter years only one cause is allowed to be given, whereas, as we know, heredity operates, as a rule, in conjunction with other causes. Only one of those may be given in cases where heredity also may have played its part, but where the fact is not notified. On the whole, there is an absence of reliable evidence that heredity is an increasing factor in the causation of insanity, although it must be regarded as by far its most powerful predisposing cause.

As to the action of consanguineous marriages in producing insanity, I think we must say "not proven." The one instance of Tory Island, as given by Dr. Moore, of Letterkenny Asylum, is sufficient to disprove any *necessary* connection between the two. Dr. Moore quotes the statement of a parish priest there, to the effect that while inter-marriages amongst relations are of absolute necessity, he knew of only one lunatic during a residence of 40 years on the island, and there are no imbeciles, epileptics, or idiots. One of the "fortunate" islands, indeed!

Judging by the statistics of individual asylums, alcohol would appear to be a very variable quantity in the causation of insanity. But this is not surprising, as the people of some districts do not appear to be as much addicted to drinking habits as those of others. Thus the County

Donegal must be a model county in this respect, as Dr. Moore says that he is "certain that only 4·65 per cent. of the cases admitted (into Letterkenny Asylum) during the three years 1890-1892 were cases where alcohol could by any chance be the cause of the insanity." The same cannot be said of Waterford, where Dr. Atkins considers that from 25 to 35 per cent. of the cases are directly due to alcoholism. The extent to which alcohol acts generally as a factor of insanity lies probably somewhere between these two extremes. In the County Wexford during the past decade the average number of cases annually admitted in which, with or without other causes, I have been able to ascertain that alcohol might have had some share in exciting or predisposing to an attack was 17·16 per cent. on the admissions. But in many of these it played at most only a subordinate part. If the two quinquennia are compared the proportion was 19½ per cent. for the first, and scarcely 15 per cent. for the last, so that in any case it can hardly be held responsible for causing any increase in insanity in this county. The statistics for the whole of Ireland give an average of scarcely nine per cent. for the last five years, whereas for the quinquennium 1873-1877 it was 46·4 per cent. on admissions. I can hardly think these figures are reliable, and no warrantable conclusion can be drawn from them, except that alcohol is, if anything, a decreasing, not an increasing factor in the causation of insanity.

While there is hardly any proof that tea-drinking, even in excess, is capable of directly causing insanity, there appears to be a well-grounded opinion on the part of nearly all the superintendents of Irish asylums that it has to some extent an indirect effect in the production of it. It has a two-fold action. By being made a substitute for more nutritious food, the deprivation of the latter leads to general malnutrition. And, secondly, by causing that condition of hyper-excitability of the nervous system, so familiar to every practitioner of medicine, it must create a special predisposition to disorders of that system. Even if properly prepared, the excessive use of it would be deleterious, but the mode of decocting it in vogue amongst the Irish peasantry is the one of all others calculated to induce its most pernicious effects. Left stewing, sometimes boiling, for a protracted time, it is frequently taken without milk, and is little better than a strong decoction of tannin. We see its effects in the number

of pale-faced children, who are brought up on it instead of the old time-honoured, but now nearly abandoned, porridge and milk.

Emigration has usually been credited with having a large share in increasing the proportional amount of insanity in this country. No doubt, by withdrawing a large number of the healthy and robust, while leaving a disproportionately large number of the feeble and ailing at home, it has had an influence in this direction; but I am inclined to think its effects have been over-estimated. Had the population remained the same in 1892 as 1887, the proportion of total insane in 1892 would have been 44·4 instead of 46·5 per 10,000, or lower by two per 10,000. *Of course, this is on the assumption that none of those who emigrated during the period, but who we are now supposing had remained at home, would have become insane.* But it is a fact that many of those who left Ireland have come back insane, and this makes it at least probable that a certain proportion of them would have become insane, even if they had stayed at home. In the Mullingar Asylum it is stated that 13 per cent. of the male patients have returned from abroad, and it is not likely that these were all cases due to sunstroke and other causes, which do not operate to any great extent in this country.

The one hard, disquieting fact remains. Insanity continues on the increase. When will this increase reach its limit? Will it ever do so? Not until the discharges and deaths come to equal the admissions. Our death-rate is, if anything, decreasing; our discharge-rate remains fairly constant, and is likely to continue so; but our admission-rate continues to rise. If this were to go on indefinitely the outlook would be gloomy indeed. We may well ask, the public may well ask, is there no remedy for this increase of insanity? None that can be applied directly. One thing is certain, the old proverb cannot have a more apt application than here—prevention is better than cure. When we look at the noble work done, and the triumphs achieved, by the preventive medicine of the present century, which has shed a lustre on our profession that is not likely soon to fade, it does seem as if something ought to be done, as if something could be done, to remove what I fear is still regarded as an *opprobrium medicinæ*. That it is so, is not altogether the fault of the medical profession. Scientific psychology is the latest born of the children of medicine; one of the

most recent conquests from the realm of mystery and superstition, which at one time held within its grasp not only the domain of mental, but even that of physical phenomena. In the spread of knowledge, in the conversion of the principles of physiological psychology into current coin, lies, I believe, the best means of checking the increase of insanity. There is still a lamentable ignorance of the laws of mental sanitation. This is greatly due to the old ideas as to the nature of insanity being still widely prevalent amongst the public at large. They must be taught that insanity is to a great extent a remediable, or rather a preventable, evil; that it depends as certainly on pre-existing causes as an attack of indigestion on the swallowing of unwholesome food; that to bow helplessly before it as a visitation of Providence, which is not to be resisted, although nominally a Christian sentiment, is in reality very much on a par with the fatalism of the Mohammedan. Now, the medical profession alone can do this. And the power to spread such knowledge, though emanating in the first instance from specialists in psychology, like the other branches of preventive medicine, lies chiefly with the general practitioner. No one can do this so well as the family physician. He is nowadays the depository of secrets, the confidential adviser and consoler as much as, if not more so, than the priest in the confessional. Let him see that he uses his opportunities rightly, and to the fullest effect. But in order to teach he must learn, and even yet education in mental science of the mass of medical men is very far from what it ought to be. But there are some broad principles which even now every medical man, in season and out of season, can and ought to enjoin. The avoidance of injudicious marriages (and this is advice which should be given in time, before the event is inevitable), the pernicious effects of the abuse of narcotics and stimulants, the necessity for control of the passions, for adjusting intellectual labour (especially in the case of children) to the powers of the individual, the careful and constant pruning of every little eccentricity of manner and conduct. These are simple matters which anyone can grasp, but which many do not pay attention to. In the more thorough education of the medical profession in the principles of mental science, and through them of the public at large, lies, I believe, the most effectual antidote to the spread of insanity in the generations yet unborn.

TABLE I.—Showing the Number of Certified Lunatics and Idiots in Lunatic Asylums, or confined as single patients in *Ireland* on 1st January, 1871-75, and 1889-93, and the Rate of Increase, allowing for Decrease of Population.

Year.	Estimated Population.	Total Number of Certified Lunatics on 1st Jan. in each year.	Proportion to 10,000 of the Estimated Population.	Proportion per 10,000 of the Population in various groups of years.	Rate of Increase in last over first quinquennium (per cent.).
1871	5,398,179	7,503	13·899	14·994	74·92
1872	5,372,890	7,853	14·615		
1873	5,327,938	7,992	15·		
1874	5,298,979	8,196	15·467		
1875	5,278,629	8,442	15·992		
1889	4,757,385	11,602	24·387	26·229	
1890	4,717,959	11,994	25·422		
1891	4,681,248	12,290	26·253		
1892	4,638,175	12,509	26·969		
1893	4,597,391	12,926	28·115		

This Table includes all Lunatics in Ireland except those in Workhouses and at large.

TABLE II.—Showing the Total Number of Lunatics and Idiots in *Ireland* on 1st January, 1871-75, and 1889-93, and the Rate of Increase, allowing for the Decrease in Population.

Year.	Total Number of Lunatics.	Proportion per 10,000 of the Estimated Population.	Proportion per 10,000 of the Population in various groues of years.	Rate of Increase in last over first quinquennium (per cent.).
1871	17,193	31·849	33·891	84·711
1872	18,327	34·109		
1873	18,177	34·116		
1874	18,307	34·548		
1875	18,387	34·832		
1889	20,759	43·635	45·655	
1890	21,181	44·894		
1891	21,221	45·332		
1892	21,607	46·585		
1893	21,990	47·831		

The Number of Total Lunatics given for each year of the quinquennium 1889-93, is obtained by adding to the numbers under care an estimated number at large, and although not absolutely accurate, probably does not differ from the actual numbers in a degree sufficient to affect materially the result. The number at large is estimated by finding the average annual decrease (52) in this class during the past ten years, and adding it to the number (4,970) returned as at large in the census of 1891 in the case of the years preceding, and subtracting it in the case of the years following the census.

Idiots and Lunatics at large in 1881 ...	...	...	5,491
" " " 1891 ...	...	...	4,970
Decrease in ten years ...	...	...	521
Average annual Decrease ...	...	...	52

TABLE III.—Showing the Distribution of Lunatics and Idiots in Ireland in Census Years.

Years.	LUNATICS.					IDIOTS.					Total Lunatics and Idiots.
	At Large.	In Asylums.	In Work-houses.	In Prisons.	Total.	At Large.	In Asylums.	In Work-houses.	In Prisons.	Total.	
1851	1073	3234	494	273	5074	3562	202	1129	13	4906	9980
1861	1602	4613	577	273	7065	3675	403	931	21	7033	14093
1871	1343	7141	1274	5	9763	5147	410	1183	2	6742	16505
1881	943	7547	1284	—	9774	4548	1896	2155	—	8639	18413
1891	893	11265	2787	—	14945	4077	996	1170	—	6243	21188

Proportion per cent. of Lunatics and Idiots in years stated.

	LUNATICS.					IDIOTS.				
	1851.	1861.	1871.	1881.	1891.	1851.	1861.	1871.	1881.	1891.
At Large...	21·14	22·67	13·75	9·64	5·97	72·60	80·69	76·34	52·64	65·30
In Asylums ...	63·73	65·30	73·14	77·21	75·37	4·11	5·72	6·08	21·94	15·95
In Workhouses...	8·73	8·16	13·04	13·13	18·64	23·01	13·28	17·54	25·40	18·74
In Prisons ...	5·37	3·86	·05	—	—	·26	·29	·03	—	—
	99·97	99·99	99·98	99·99	99·98	99·93	99·98	99·99	99·98	99·99

TABLE IIIA.—Showing Admissions into Asylums in Ireland from Workhouses during 10 years, 1883-92, distinguishing First Admissions.

Quinquennial Period.	First Admissions.	Not First Admissions.	Total.
1883-1887 ...	1374	260	1634
1888-1892 ...	1516	424	1940
Increase per cent. in Last over First Quinquennium	10·33	63·07	18·72

TABLE IV. (TOTAL ADMISSIONS).—Showing the Total Admissions into District and Private Asylums in Ireland for the 25 years 1868-92, and the Proportion per 10,000 of the Estimated Population and the Rate of Increase, allowing for the Decrease of Population.

Year.	Total number of Admissions.	Proportion per 10,000 of the estimated Population.	Average proportion per 10,000 in various groups of years.	Ratio of increase or decrease in the several periods (per cent.).	Rate of increase in last over first quinquennium (per cent.).
1868	2,625	4·802	4·704	-2·551	42·83
1869	2,881	5·287			
1870	2,515	4·641			
1871	2,409	4·462			
1872	2,328	4·332			
1873	2,454	4·605	4·584	+9·947	
1874	2,333	4·402			
1875	2,318	4·391			
1876	2,542	4·816			
1877	2,488	4·706			
1878	2,535	4·799	5·040	+18·075	
1879	2,565	4·871			
1880	2,532	4·866			
1881	2,647	5·144			
1882	2,818	5·524			
1883	2,839	5·651	5·951	+12·905	
1884	2,898	5·825			
1885	3,022	6·119			
1886	2,887	5·884			
1887	3,050	6·279			
1888	2,967	6·179	6·719		
1889	3,121	6·560			
1890	3,242	6·871			
1891	3,177	6·786			
1892	3,341	7·203			

TABLE IVA (TOTAL ADMISSIONS).—Showing the Admissions of Certified Lunatics and Idiots into Asylums and Private Houses in England and Wales during the 25 years 1868-92, allowing for Population.

Year.	Admissions of Certified Lunatics during each year.	Proportion to 10,000 of the Estimated Population.	Proportion to 10,000 of the Population in the various groups of years.	Rates of In- crease or De- crease in the several periods (per cent.).	Rate of Increase in last over first quinquennium (per cent.).
1868	11,213	5.109	5.221	+ 12.756	22.88
1869	11,194	5.039			
1870	11,620	5.164			
1871	12,573	5.519			
1872	12,176	5.278			
1873	12,773	5.469	5.887	— 0.186	
1874	13,229	5.594			
1875	14,317	5.979			
1876	14,386	5.934			
1877	15,963	6.463			
1878	15,102	6.033	5.876	— 0.663	
1879	14,867	6.860			
1880	15,240	5.927			
1881	14,669	5.629			
1882	15,665	5.931			
1883	16,000	5.977	5.837	+ 9.919	
1884	17,669	6.512			
1885	14,774	5.373			
1886	15,331	5.570			
1887	16,011	5.753			
1888	17,119	6.084	6.416		
1889	17,749	6.239			
1890	19,134	6.652			
1891	18,703	6.431			
1892	19,625	6.674			

TABLE IVB (ADMISSIONS LESS TRANSFERS).—Showing the Admissions of Certified Lunatics and Idiots, less Transfers, into Asylums and Single Houses in England and Wales during the 24 years 1869-92, allowing for Population.

Year.	Admissions of Certified Lunatics, less Transfers.	Proportion per 10,000 of the Estimated Population.	Proportion per 10,000 of the Population in various groups of years.	Rate of Increase or Decrease in the several periods (per cent.).	Rate of Increase in last over first quinquennium (per cent.).
1869	10,617	4.777	4.701	+ 10.529	19.76
1870	10,399	4.622			
1871	10,758	4.721			
1872	10,820	4.685			
1873	11,441	4.888	5.196	+ 1.593	19.76
1874	12,146	5.120			
1875	12,677	5.273			
1876	13,082	5.369			
1877	13,163	5.329	5.276	— 1.478	19.76
1878	13,570	5.421			
1879	13,291	5.239			
1880	13,451	5.231			
1881	13,693	5.254	5.198	+ 8.310	19.76
1882	13,829	5.236			
1883	14,681	5.484			
1884	14,512	5.349			
1885	13,557	4.930	5.630		
1886	13,830	5.025			
1887	14,484	5.205			
1888	15,007	5.333			
1889	15,336	5.391	5.630		
1890	16,433	5.713			
1891	16,923	5.819			
1892	17,332	5.894			

TABLE V. (FIRST ADMISSIONS).—Showing the Admissions of Certified Lunatics, less Transfers and Readmissions, into Asylums in Ireland during each of the years 1868-92, and the Rate of Increase, allowing for Decrease of Population.

Year.	Admissions of Certified Lunatics, less Transfers and Readmissions.	Proportion per 10,000 of the Estimated Population.	Proportion per 10,000 of the Population in various groups of years.	Rate of In- crease or De- crease in the several periods (per cent.)	Rate of Increase of last over first quinquennium (per cent.).
1868	2,257	4.129	3.955	— 5.43	32.24
1869	2,485	4.560			
1870	2,095	3.866			
1871	1,976	3.660			
1872	1,913	3.560			
1873	1,993	3.740	3.740	+ 9.54	
1874	1,907	3.598			
1875	1,914	3.625			
1876	2,039	3.863			
1877	2,048	3.874			
1878	2,077	3.932	4.097	+ 14.86	
1879	2,085	3.959			
1880	2,055	3.949			
1881	2,166	4.209			
1882	2,264	4.438			
1883	2,288	4.554	4.706	+ 11.13	
1884	2,335	4.693			
1885	2,376	4.811			
1886	2,241	4.568			
1887	2,382	4.904			
1888	2,298	4.786	5.230		
1889	2,458	5.166			
1890	2,569	5.445			
1891	2,482	5.302			
1892	2,530	5.454			

Inclusive of Admissions from Workhouses to Asylums.

TABLE VA (FIRST ADMISSIONS).—Showing the Admissions of Certified Lunatics and Idiots, less Transfers and Readmissions, into Asylums and Single Houses in England and Wales during the 24 years 1869-92, and the Rate of Increase, allowing for Population.

Year.	Admissions of Certified Lunatics, less Transfers and Readmissions.*	Proportion per 10,000 of the Estimated Population.	Proportion per 10,000 of the Population in various groups [of years.	Rates of In- crease or De- crease in the several periods (per cent.).	Rate of In- crease of last over first quinquennium (per cent.).
1869	9,188	4.134	4.072	+11.075	20.11
1870	9,027	4.012			
1871	9,267	4.067			
1872	9,412	4.075			
1873	9,942	4.247	4.523	+1.127	
1874	10,619	4.476			
1875	11,023	4.585			
1876	11,404	4.680			
1877	11,428	4.627	4.574	-2.011	
1878	11,844	4.731			
1879	11,480	4.525			
1880	11,596	4.570			
1881	11,821	4.538	4.482	+9.125	
1882	11,871	4.508			
1883	12,767	4.795			
1884	12,539	4.645			
1885	11,578	4.253	4.891		
1886	11,765	4.275			
1887	12,362	4.442			
1888	12,937	4.568			
1889	13,318	4.682			
1890	14,360	4.993			
1891	14,764	5.007			
1892	15,051	5.118			

* Exclusive of removals from Workhouses to Asylums, which are not given in the Blue Books.

TABLE VI.—Showing the Discharges and Deaths in Irish District Asylums for the ten years 1883-92, and the percentage on the Admissions in English County and Borough Asylums for the same period.

Year.	Discharged recovered.	Discharged not recovered.	Total discharged.	Deaths.
1883	1,079	460	1,539	892
1884	1,151	573	1,724	865
1885	1,196	605	1,801	856
1886	1,172	469	1,641	894
1887	1,123	409	1,532	857
Percentage on admissions for quinquennium 1883-87	41·16	18·10	59·26	8·87
Ditto for England	*40·07	†21·08	†61·13	*10·00
1888	1,207	500	1,707	786
1889	1,213	607	1,820	779
1890	1,255	594	1,849	936
1891	1,218	653	1,871	888
1892	1,189	593	1,782	995
Percentage on admissions for quinquennium 1888-92	40·37	19·56	59·94	7·8
Ditto for England	*39·39	†24·05	†63·46	*10·20
Percentage on admissions for ten years 1883-92	40·75	18·86	59·61	8·3
Ditto for England	*39·70	†22·67	†62·38	*10·11

* Taken from percentages of Commissioners' Tables VI. and VII., Report 1892, pp. 24-25.

† Calculated on actual figures given by Commissioners' Table V., Report 1892, p. 20.

TABLE VII.—Deaths from Diseases of the Nervous System during the 20 years 1873-92.

Year.	Estimated Population.	Deaths from Diseases of the Nervous System, excluding Convulsions.	Deaths in Asylums from Diseases of the Nervous System.	Deaths from Diseases of the Nervous System, excluding Asylums.	Deaths per 1,000,000 from Diseases of the Nervous System.	Total Deaths per 1,000,000 in each 10 years.
1873	5,327,938	4,794	146	4,648	872	8,811
1874	5,298,979	4,232	204	4,028	760	
1875	5,278,629	4,590	183	4,407	834	
1876	5,277,544	4,599	182	4,417	836	
1877	5,286,380	4,617	230	4,387	829	
1878	5,282,246	4,840	223	4,617	874	
1879	5,265,625	5,168	201	4,967	943	
1880	5,202,648	5,012	190	4,822	926	
1881	5,145,770	5,259	189	5,070	985	
1882	5,101,018	5,063	206	4,857	952	
1883	5,023,811	5,369	206	5,163	1,027	10,567
1884	4,974,561	5,234	229	5,005	1,006	
1885	4,938,588	5,544	236	5,308	1,074	
1886	4,905,895	5,535	244	5,291	1,078	
1887	4,857,119	5,413	234	5,179	1,066	
1888	4,801,312	5,368	205	5,163	1,075	
1889	4,757,385	5,192	224	4,968	1,044	
1890	4,717,959	5,047	237	4,810	1,019	
1891	4,681,248	5,510	252	5,258	1,123	
1892	4,638,175	5,165	269	4,896	1,055	

Increase in Deaths from Diseases of the Nervous System during the last decade over those of the previous one per million of estimated population 19.9 per cent.
 Percentage increase in absolute number of do. 18.08 "
 Increase of Deaths from Diseases of the Nervous System in Asylums during the same period (Cerebral and Spinal Affections, including Exhaustion after Mania and Melancholia) 19.5 "

TABLE VIII.—Showing the Age Distribution of Admissions.
Percentage at several ages on Total Admissions.

Quinquennial Periods.	Total Number Admitted.	Number of cases in various ages.			Percentage on Admissions.			Increase or Decrease of last over first quinquennium (per cent.).		
		0-20.	20-60.	Over 60	0-20.	20-60.	Over 60.	0-20.	20-60.	Over 60.
1873 to 1877	11,221	918	9,094	876	8.18	81.04	7.80	-8.48	+83	+13.01
1878 „ 1882	12,272	924	9,916	1,030	7.52	80.80	8.39			
1883 „ 1887	13,899	1,041	11,412	1,076	7.48	82.10	7.74			
1888 „ 1892	15,063	1,129	12,510	1,329	7.49	81.72	8.82			

Percentage of Increase in Absolute Numbers.

Quinquennial Periods.	Total Number Admitted.	Number of cases in various ages.			Percentage of Increase for several Periods.			Rate of Increase of last over first quinquennium.		
		0-20.	20-60.	Over 60.	0-20.	20-60.	Over 60.	0-20.	20-60.	Over 60.
1873 to 1877	11,221	918	9,094	876	} .65 12.66 8.46	9.03 15.08 7.86	17.58 4.46 23.51	} 22.98	35.36	51.71
1878 „ 1882	12,272	924	9,916	1,030						
1883 „ 18 7	13,899	1,041	11,412	1,076						
1888 „ 1892	15,063	1,129	12,510	1,329						

Number of Cases over 70 Years of Age.

Quinquennial Period.	Number admitted.	Number of cases over 70 years of age.	Percentage of cases over 70 on those admitted.	Increase of last over first quinquennium (per cent.).
1873 to 1877	11,221	229	2.04	} 18.62
1878 „ 1882	12,272	256	2.08	
1883 „ 1887	13,899	307	2.20	
1888 „ 1892	15,063	365	2.42	

Percentage of Increase in Absolute Numbers.

Quinquennial Periods.	Number admitted.	Number of cases over 70 years of age.	Percentage of increase in several periods.	Increase of last over first quinquennium (per cent.).
1873 to 1877	11,221	229	} 11.78 20.00 18.89	} 59.38
1878 „ 1882	12,272	256		
1883 „ 1887	13,899	307		
1888 „ 1892	15,063	365		

TABLE IX.—Showing the Admissions into District Asylums in Ireland for the 20 years 1873-92, distinguishing Readmissions.

Year.	FIRST ADMISSIONS.			READMISSIONS.			TOTAL ADMISSIONS.		
	For each year.	Total for five years.	Rate of Increase in the several periods (per cent.)	For each year.	Total for five years.	Rate of Increase in the several periods (per cent.)	For each year.	Total for five years.	Rate of Increase in the several periods (per cent.)
1873	1,849	9,199	8.65	428	2,022	12.61	2,277	11,221	9.36
1874	1,761			393			2,154		
1875	1,777			355			2,132		
1876	1,888			456			2,344		
1877	1,924			390			2,314		
1878	1,934	9,995	10.22	432	2,277	26.57	2,366	12,272	13.25
1879	1,955			438			2,393		
1880	1,925			441			2,366		
1881	2,044			458			2,502		
1882	2,137			508			2,645		
1883	2,185	11,017	6.51	519	2,882	15.47	2,704	13,899	8.37
1884	2,209			527			2,736		
1885	2,240			610			2,850		
1886	2,140			606			2,746		
1887	2,243			620			2,863		
1888	2,190	11,735		631	3,328		2,821	15,063	
1889	2,329			627			2,956		
1890	2,451			644			3,095		
1891	2,350			660			3,010		
1892	2,415			766			3,181		
Percentage Increase of First Admissions in last over first quinquennium									27.56
" " Readmissions " " "									64.59
" " Total Admissions " " "									34.24
Percentage Increase of last decade over former. First Admissions									18.53
" " " " Readmissions									44.45
" " " " Total Admissions									23.27

Increase of Insanity in Ireland. By D. HACK TUKE, M.D.

I have endeavoured to prepare tables on Irish Lunacy corresponding to those which I have given in my paper* on the "Alleged Increase of Insanity in England and Wales."

One of these shows the number of *certified* lunatics and idiots in lunatic asylums during a series of years, and the rate of increase allowing for changes in the population; another shows the *total* number of lunatics and idiots at a certain year and subsequent years, and the rate of increase allowing for population; while the third and most important table gives the *First Admissions* of *certified* lunatics and idiots into asylums during a series of years, and the rate of increase after allowing for population.

For reasons given in the paper referred to, I was obliged to abandon the attempt to give a table of First Attacks. And here I would observe that in the Irish Lunacy Blue Books, not only are First Attacks unrecorded, but First Admissions have been frequently spoken of as synonymous with First Attacks; but it must be obvious that many patients admitted for the first time into an asylum may have had previous attacks and been cared for elsewhere. Or, again, they may have been transferred from other institutions; but my information on this point is quite unreliable.

Now, taking first the number of *certified* lunatics and idiots in the asylums of Ireland during each of the 19 years 1875 to 1893 inclusive, I find that the rate of increase during the last over the first quinquennium is as high as 60 per cent., after allowing for the decrease of population. In England and Wales during a corresponding period the rise did not exceed 22 per cent.

If next we ascertain the total number of lunatics and idiots in Ireland on January 1st, 1875, and subsequent years (except those "at large"), and the rate of increase, we find that the rate of this increase during the last over the first quinquennium has been 53 per cent.

Taking these tables, then, it appears that the rate of increase has been much greater among the *certified* lunatics than among those *uncertified*; that is to say, those who are in workhouses. In the former table (Table I.) the rate of increase from 1875 to 1893 has been 60 per cent., while in

* "Journal of Mental Science," April, 1894.

the latter table (Table II.) the rate of increase has been 53 per cent., reckoning, in each case, the decrease of population. This shows that while in both instances there has been a great increase in the number of lunatics and idiots under care, this has taken place in the direction of crowding asylums more than crowding workhouses.

If we take the Irish census returns of 1871 and 1891, we observe that while the increase in the population in asylums between 1871 and 1891 is 4,710, the increase in the insane population of workhouses is 1,500.

Again, if we take the number returned in the census as being "at large," we find that there were 6,490 in 1871 and 4,970 in 1891, showing a decrease of 1,520, or 23·42 per cent. This shows, at any rate, that one cause of the apparent increase of insanity is the transfer to workhouses and asylums of lunatics and idiots who were formerly spread about the country with their friends or were wandering lunatics. This is just what we should expect from what has occurred in England and Wales.

We must, no doubt, partially account for the increase in the existing number of the insane in asylums as the necessary result of accumulation, but *how far* it explains it can only be ascertained by somewhat elaborate calculations on the lines which I have adopted in regard to the asylum at Newcastle.*

A table I have prepared giving the First *Admissions* of *certified* lunatics and idiots in Ireland into district and private asylums and Dundrum, during each of the eighteen years 1875-1892, shows the rate of increase in the last over the first quinquennium to be 36 per cent. (Table III.). In England and Wales during the corresponding period (1875 to 1892) the rate of increase was barely six per cent., showing an excess in Ireland over England of about 30 per cent. (omitting decimals in every instance).

Here, then, although we get a much lower figure than when we take existing lunacy, we have a very alarming apparent increase of lunatics in this Kingdom. The question is, whether this is real as well as apparent?

Obviously in regard to First Admissions—which, alas! very roughly represent First *Attacks* of insanity—we can no longer explain the rise by the effect of accumulation. But we may no doubt account for the fact to some extent by the transference of patients from workhouses to district asylums, and

* See paper "On the Alleged Increase of Insanity," *op. cit.*

also from the growing opinion that the latter are more suitable for their treatment. I have not been able to ascertain the amount of this transference in recent as compared with former years, but whatever it may be, we shall still have to account for a vast rise in the number of admissions.

I wish here to remark on the bearing of *emigration* upon the alleged increase of insanity, more especially because the way in which this relationship is often described does not appear to me to be logical and true.

Now, it is quite true that if the population is diminished, the proportion of insane to the population will be higher, but then the number of lunatics requiring asylum care may not be any larger. To say, therefore, that emigration from Ireland has caused an increase of lunacy, simply on this ground, is absurdly illogical. This inference ought not to be solely drawn from the fact that the strongest and healthiest of the population emigrate, and the weaker inhabitants remain at home; for it must be further shown, and very likely this is the case, that the latter class have more responsibilities and harder work imposed upon them, and are consequently more liable to become insane. Moreover, it must be remembered that although some who go abroad become insane, and if they remain there lessen the numbers in Ireland, many are sent back mental wrecks.

The rate of emigration from Ireland during the last 20 years is highest in County Kerry, viz., 20·3 per 1,000. This, in the Report of Medical Superintendents to the Inspectors, is called the "Killarney Districts" (p. 7). The superintendent of the asylum for the district states that there has been an abnormal increase in the First Admissions, the greatest, in fact, during the last ten years.* It is attributed by him to severe mental strain and anxiety, consequent upon financial and social difficulties. It is said that emigration has not directly caused the increase of insanity, but has done so indirectly by the return of insane emigrants. It can hardly be doubted, however, that the mental strain due to financial and social difficulties must to some extent have been aggravated by the loss of the bread-winners.

The rate of emigration is lowest in County Dublin, viz., 5·4 per 1,000, as against 20·3 in Kerry. What has been the rise in insanity? Although the number of persons under treatment in the Dublin Asylum has risen from 1,055 in

* First Admissions for ten years ending 1882 amounted to 538, whilst those for the following ten years equalled 826.

1883 to 1,467 at the end of 1892 (or 412 more) the Medical Reporter, Dr. Conolly Norman, observes:—

“At the same time, as the result of much consideration, it is not thought that the facts warrant the conclusion that there has been during the period any very marked increase in the tendency to insanity amongst the inhabitants of the district.” So far as there is an apparent increase, Dr. Norman attributes it to:—(1) Decreased prejudice against asylums; (2) The friends of patients being less tolerant of having insane persons in their midst; (3) Poor-Law Authorities being more sensible of the unsuitability of most workhouses to provide for the insane; (4) The fact that the increase is almost confined to Dublin itself, where the population is increasing. The death-rate and the recovery-rate have also decreased, and will largely account for the accumulation of cases, though, as I have already said, not for the rise in admissions.

Let us now take five districts which, according to the rate of emigration during the last 20 years, head the list.

These are Kerry, Longford, Leitrim, Clare, and Sligo. The average rate for these is 18·86 per 1000.

The five lowest on the list are—Down, Kildare, Louth, Wicklow, and Dublin. The average rate for these is 8·12.

Now, taking the Medical Superintendents' Reports of the former group, we note that the increase in Kerry, as already stated, is very marked. Of Longford it is stated that reliable statistics as to the effects of emigration as a source of causation have not been available; but it is pointed out, as a striking fact, that “of the male patients at present under treatment, 13 per cent. have been abroad . . . the majority having returned from America after various periods of residence there” (p. 10). In regard to First Admissions, there has been no material increase. In Leitrim and Sligo, “emigration has not influenced the transfers to asylums in recent times” (p. 11). Lastly, in regard to Clare, “there has been a steady increase in the asylum population during the past decade” (p. 7).

Turning now to the districts in which emigration is at a *minimum*, it is observed in the Medical Reports that, “although the average number resident in the asylum for Down for the ten years 1883-92 progressively increases, the number of First Admissions gradually decreases.”

As to Kildare, the apparent increase in insanity is recog-

nized, and is attributed to the excessive use of alcohol and the deleterious change in diet.

There remain Louth, Wicklow, and Dublin, and we have already quoted a passage to the effect that there does not appear to have been any very marked increase of insanity in these divisions.

On the whole, therefore, there appears to be the larger increase in the districts where emigration is at a *maximum*. At the same time, there are many other causes at work, and there is always this possible source of fallacy, namely, that the factors which lead to emigration—for example, poverty, may also determine an augmentation of mental disorders.

It is impossible to doubt that the large number of evictions has exerted considerable influence by means of mental worry and excitement in increasing the number of the insane. This conclusion is not affected by the question whether they were justifiable or not.

But we may say that the general condition of Ireland for some years, of which evictions are a natural result, apart from political movements, has most to do with the causation of insanity. Emigration itself, which has from one point of view been beneficial by relieving congested districts, has been an outcome of this condition, that is to say, the *poverty of the land*; although it may be true, as Lord Salisbury, in an able speech in Parliament, asserted a few years ago, that bad legislation, or the want of good legislation, was one great cause of the poverty of the Irish people. Not race, his lordship said, not the prevalent form of religion, but unjust laws are at the root of the misery and the disturbances in Ireland. Happily, this cause has been largely, if not altogether, removed, but no doubt Lord Salisbury might reply that the *consequences* are still in operation, and among them we can hardly exclude mental degeneration, which is, in truth, the melancholy heirloom of the past. I repeat, if all that Lord Salisbury has said must be accepted as only too true, still I maintain that there are large tracts of land in the West of Ireland which are so poor in quality that only a precarious living can be obtained by the tenants, who, therefore, live under conditions well calculated to produce mental weakness and insanity. The insane, it must be remembered, would in old times have, in many instances, paid the debt of nature in their own huts, or been sent to some gaol or poor-house to end their lives

miserably there, whereas now they are duly chronicled for the delectation of the statistician, and their lives are inconveniently prolonged in comfortable asylums—inconveniently, at any rate, from the ratepayers' point of view.

The excitement and unrest connected with the political tumults of Ireland must be credited with some influence in the causation of insanity. Certainly in all revolutionary movements this has been the case, and there is no reason why this unhappy country should prove an exception.

In Ireland there has been, as one might expect from the corresponding experience of England, a far larger increase of alleged insanity among the poorer than the wealthy classes. Private patients increase but little.

In reference to the Inspectors' Report and the opinions expressed by the Asylum Superintendents, I believe that increased agricultural depression is rightly credited with some of the increase of insanity. We know, at any rate, that among the recognized causes of insanity in England this plays a part, and I hardly see how it can be otherwise. If this is not admitted to be a cause, to any large extent, it cannot be denied that it has driven men to emigrate, and we then come back to our old friend emigration, that lamentable though, under the circumstances, necessary evil.

The statistical proof of the effect of agricultural depression, in the way it is brought forward, is hardly conclusive; for example, at page 16 of the Inspectors' Report it is stated in illustration of the reality of this as a causative element that, in the excellent report furnished by the Medical Superintendent of the Armagh Asylum, there is the *suggestive fact*, that of patients admitted during the last ten years as many as 349 belonged to the agricultural population, while only 28 were drawn from the artisan and commercial classes—without any reference to the relative population of these classes in the Armagh district.

The *dietary* of the poor Irish is strongly dwelt upon in this Report, and the regrettable change which has taken place may certainly have much to do with bad mental as well as bad bodily health. If it be true, as I am assured on high authority, that more alcohol is consumed than formerly, there can surely be no doubt as to this being one explanation among others of the alleged increase of mental disease. I observe the enormous importance assigned to the abuse of tea, and the way in which it is prepared, and if this is

exaggerated as regards its immediate action on the nervous system in causing insanity, its substitution for milk and porridge is lamentable indeed.

I would say, in conclusion, that the salient feature of the evidence before us is the enormous increase in the number of first admissions of insane and idiots into asylums, in spite of the extraordinary decrease of the general population; the consequence being the over-crowding of these institutions from this cause, in addition to the inevitable effect of accumulation.*

Again, we have what appears to be a very obvious and melancholy cause for the increase of occurring insanity in the influence exerted upon the feeblar portion of the community by the worry and increased responsibility thrown upon them by the removal of a great mass of the healthiest and strongest section of the population.

I believe that we touch here an important cause of whatever real increase of the insane there may be in Ireland since 1875, and probably before, although it is difficult to prove it, as previous to that year there were no official returns of the first admissions of patients into asylums; always remembering that we must go back to that which has necessitated emigration—the inevitable poverty of the people in certain districts.

Further, the unhappy circumstances of the population, deprived to a large extent of the bread-winners of families, has been aggravated by marriages amongst this enfeebled class of the community, and the consequent hereditary transmission of feeble minds—a serious degeneration of the race following.

Such are the very brief considerations and deductions arising out of the study of this important question of the increase of insanity in Ireland. I confess that I am disposed to admit, after making liberal deductions for the effects of accumulation, that in view of the Admission Table there is in certain districts in Ireland, although not by any means in all, some actual as well as apparent increase of mental disorder.

* Had not the actual admissions increased, it might be fairly argued that the calculation of the proportion of the insane to the enormously lessened population was fallacious. And, indeed, as it is, taken alone this is to a certain extent true, because the insane who remain on hand or are freshly admitted are in part derived from the families of those who have emigrated. This aspect of the question deserves more consideration than it has received.

TABLE I.—Showing the Number of *Certified Lunatics* and Idiots in Lunatic Asylums in Ireland during the years 1875-1893 inclusive, and the Rate of Increase, allowing for Decrease of Population.

Year.	Number of Cer- tified Lunatics January 1st.	Proportion to 10,000 of the Population.	The same in Groups of Years.	Rate of Increase in the last over the first Quinquen- nium per cent.
1875	8,442	15.99	16.37	60.17 (say 60 per cent.)
1876	8,595	16.28		
1877	8,907	14.95		
1878	9,008	17.05		
1879	9,248	17.56		
1880	9,328	17.93		
1881	9,486	18.43		
1882	9,748	19.11	26.229	
1883	10,111	20.12		
1884	10,362	20.83		
1885	10,504	21.28		
1886	10,686	21.78		
1887	10,860	24.41		
1888	11,301	25.62		
1889	11,602	24.38	26.229	
1890	11,994	25.42		
1891	12,290	26.25		
1892	12,509	26.96		
1893	12,926	28.11		

TABLE II.—Showing the *Total Number of Lunatics and Idiots in Ireland not “at large”* on Jan. 1st, 1875, and subsequent years, and the *Rate of Increase, allowing for Decrease of Population.*

Year.	Total Number on 1st January.	Proportion to 10,000 of the Population.	Proportion per 10,000 of the Population in Groups of Years.	Rate of Increase in the last over the first Quinquen- nium per cent.
1875	11,583	21·94	22·88	53·45
1876	11,777	22·31		
1877	12,123	22·93		
1878	12,380	23·44		
1879	12,583	23·80		
1880	12,819	24·63		
1881	13,051	25·36	35·11	
1882	13,444	26·35		
1883	13,821	27·55		
1884	14,088	28·32		
1885	14,280	29·71		
1886	14,419	29·39		
1887	14,702	30·27		
1888	15,263	31·76		
1889	15,686	33·15		
1890	16,159	34·46		
1891	16,251	34·54		
1892	16,689	35·98		
1893	17,124	37·43		

TABLE III.—Showing the First *Admissions* of Certified Lunatics and Idiots into Asylums in Ireland during each of the 18 years 1875-1892, and the Rate of Increase.

Year.	First Admissions of Certified Lunatics.	Proportion per 10,000 of the Population.	Proportion per 10,000 of the Population in Groups of Years.	Rate of Increase in the last over the first Quinquennium (per cent.)
1875	1,914	3.62	3.85	35.84 (say 36 per cent.)
1876	2,039	3.86		
1877	2,048	3.87		
1878	2,077	3.93		
1879	2,085	3.96		
1880	2,055	3.96		
1881	2,166	4.21	5.23	
1882	2,264	4.44		
1883	2,288	4.55		
1884	2,335	4.70		
1885	2,376	4.81		
1886	2,241	4.57		
1887	2,382	4.91		
1888	2,298	4.79		
1889	2,458	5.17		
1890	2,569	5.45		
1891	2,482	5.30		
1892	2,530	5.45		

Dr. OSCAR WOODS—It is not my intention to follow in any detail the very able paper of Dr. Drapes; but there are one or two questions which I wish to refer to. First, with regard to the death-rate in Ireland, I think the low death-rate, as compared with that in England, accounts to a great extent for the apparent increase from accumulation in the Irish asylums. The almost total immunity we have from cases of general paralysis is not realized by our English colleagues. With 1,200 patients in Cork Asylum, I have only four suffering from general paralysis. In the mining districts in England there are as many as 25 per cent. of the patients epileptic, while in Cork

Asylum we have only 7 per cent. With regard to the causes of insanity, I have long held that consanguineous marriages and heredity are accountable to a very great extent for it. I believe a great number of the cases can be accounted for by too early discharge from asylums—before the patients recover. It appears that they come in a great deal earlier now than they formerly did, but the desire of the friends appears to be to get them out again as soon as the more acute symptoms have passed off, and before recovery is complete. There is a very unfortunate clause of the Acts, which empowers anyone to take out a dangerous lunatic; and that, I think, has acted very deleteriously with regard to patients and crime in Ireland. During the last month, three patients have been taken out of the Cork Asylum strongly against my wishes, and all have been sent in again within the month. Consanguineous marriages are also much more common in Ireland than, I think, is generally supposed, and more frequent than formerly. The districts are small, and the country people much dislike leaving home. In England men will go where they get the highest wages, but in Ireland men will work for nearly half the money in their own district, and as the people do not move about, consanguineous marriages are much more numerous, especially in Kerry, Connemara, and Donegal. Alcohol also is an increasing cause of insanity, the majority of people are better off, wages are higher, and with heredity as a predisposing cause, the spark is in many cases quickly set aflame. Indeed, in a large number of cases people who have just come out of the asylum are greeted with, "Oh! I am so glad to see you home; come and have a drink;" and this is too often repeated, and a relapse brought on. I do not believe that emigration has much to do directly with the increase of insanity in Ireland. That is the impression I have gained from experience in two counties—Kerry and Cork. Indirectly, emigration has, however, tended to increase our numbers, as many who go to the United States break down from leading a more arduous and anxious life than at home; and in America the authorities have the power which they often avail themselves of, of returning the emigrant to this country.

Dr. ATKINS—I am one of those who do not believe in a universal increase of insanity in Ireland to any large extent. I think Mr. Corbett exaggerated statistics. I entirely agree with the wise conclusion of Dr. Hack Tuke—that there is a slight increase in some districts of the country, but not upon the whole an alarming increase, and that the apparent increase is due in many cases to overlooking the effect of accumulation. But there can be no doubt whatever that the patients now live a much longer time, and are also better preserved from accident. Thus the admissions, whether primary or not, are largely in excess of the deaths and discharges, and, therefore, year after year there is a remnant of patients which leads to a blocking up of the asylums. Now, in Ireland, life is to a certain extent different from what it is in England. There is a large amount of unrest due to political excitement; but that occurs in periods, and in some districts life does not suffer from that unrest, but goes on as we find it in the hidden valleys of Switzerland and the Tyrol, where families live long and intermarry and give rise to degenerate persons who are prone to become affected by mental excess. If we examine our patients, we find many of them suffering from physical stigmata. Now, I am strongly of opinion that emigration has a certain influence on the increase of insanity in certain districts. In Waterford district the population fell by 14,000 as compared with the returns of 1881. It is not easy to say how far that 14,000 is due to emigration, but I have personal knowledge that it was largely so. Dr. Hack Tuke has remarked that it is of importance to ascertain whether those who were left behind—the weaker ones—had an excessive strain, mental or physical, put upon them; and I have ascertained that many of them have. Dr. Woods, of course, has a better opportunity of ascertaining how many return from America. I have myself under care a number who did return, and are

either insane or so affected by climatic and other influences in America that they break down easily; and I think that their emigration must be charged with a considerable amount of the increase. It is difficult to ascertain how many consanguineous marriages take place. According to the rules of the Roman Catholic Church consanguineous marriages are forbidden. But, at the same time, these rules are violated in some cases. I wrote to a large number who might have afforded information to solve this question, but they would not do so. But that consanguineous marriages do take place is a matter of which people living amongst these classes are perfectly cognizant. In fact, I believe if we were to take the close relationships, 30 or 40 per cent. of the patients are related to each other in some degree; and, therefore, I think consanguineous marriages must be taken as one cause of the increase. Now, Dr. Drapes remarked that those who are themselves personally influenced by either alcoholic or non-alcoholic propensities view this matter in different ways. I myself am a total abstainer, and do not think that alcoholism contributes to any large extent to the increase. It certainly does increase insanity, but that it is the cause of the great increase in asylum populations during recent years I don't agree. I get a very small proportion directly insane to a large proportion of others indirectly insane as the result of alcohol. I myself think there is no need for alarm on the ground of insanity in this country, and that under favourable circumstances and with proper care it will not increase to any great extent. There is no doubt what Dr. Tuke stated about the removal of patients from asylums when they are but partially recovered is a most important matter. We all know that such patients are liable to give rise to a progeny who are not fitted to bear the stress of life.

Dr. ANDRIEZEN—There is one thing that strikes me at once, and that is the absolute increase in Dr. Drapes' Table VII., which deals with the nervous diseases. The percentage is greatly increased from 1873 onwards. The Registrar-General's returns in England show exactly the same thing. It is pretty well understood by students of neurology that those nervous diseases which finally lead up to insanity are steadily on the increase. I look upon them as evolved, during the increasing stresses of our higher social evolution, from those who are not endowed with robust nervous systems—such as the epileptic nerve element, the criminaloid with his anatomical stigmata, the paranoiac, and others of this vast host of decadent humanity. One finds, in looking at the statistics of the last 30 or 40 years, that zymotic diseases—those subject to hygienic control—are decreasing, and this is due, no doubt, to the increased improvements in hygiene of the last 40 years. There is, I think, in the end, after making all allowances, a slight increase in insanity, and we have no means of preventing it at present. Much the same holds for causes which produce our neuropaths—the precursors of insanity—and the ultimate product of the present causes must be a slow increase of diseases of the sort ending in insanity. There was a reference made by Dr. Atkins to certain districts where races intermarry and lead to degeneration in their descendants. One always finds this in the case of the cretins, the last stages in race-decadence in certain localities. Of course, they arrive at a stage in which they can no longer reproduce—that is, in the fourth or fifth generation. But the cretin-ancestors are healthy at first, becoming diseased owing to local conditions. Well, there are conditions in modern life analogous to these—unhealthy conditions of both body and mind—which must ultimately end in producing a large number of feeble-minded children; and this question of feeble minds has a great deal to do with the question of increasing insanity. In cases where the environment is unhealthy, as in our cities, it will slowly act on the children. And yet there are many feeble-minded people who stop short of the cognizance of the asylum. A commission of the Charity Organization Society which investigated the subject some time ago in London agreed that there was a slight but steady increase in the number of feeble-minded children of the

poor. Another thing is this, that these people tend to congregate in districts. If you take the various grades of society, you will find amongst those where men are more prudent—in the better classes—that marriages are later and families are smaller. And in the lower classes—the criminals, etc.—one finds them relatively speaking much more fruitful, and these classes continue and will continue to furnish the stock of the feeble-minded, the moral delinquents, and the degenerate. So that in the present conditions of life one does not see how this can be stopped.

Dr. CLOUSTON—I would like to add two facts and one theory to this debate. First, in the county of Argyle, in Scotland, we have precisely similar conditions to those which exist in most parts of Ireland—a diminishing population, and a Celtic population. The second fact is this: A great deal has been said of heredity. I know a northern parish of Scotland, consisting entirely of a Teutonic stock, all well off, without much drunkenness among them, and with few worries, an extraordinary number of them being landowners. I investigated the history of three generations, and found there had occurred cases of mental disease, of slight or grave epilepsy, imbecility or idiocy in one-half of the families. And, of the present population, there is one person who is or has been mentally affected, or an epileptic, or an imbecile, or idiotic in the proportion of one to 50. My intimate knowledge of the people enabled me to include slight cases of melancholia and mental disturbance. All were not technically and certifiably insane. So that there are probably a great many people still at large in every part of the country who might be sent to asylums at any time during the next fifty years. My theory is this: It is quite well known that when a primitive people is subjected to a sudden change in its surroundings, and has suddenly to adapt itself to new social conditions and environments, mental or bodily, it is liable to striking consequences, such as extinction, degeneration, or loss of mental force. I do not wish to compare the Irish in any way to the Maoris, but the same laws must prevail in regard to all races. In the case of the New Zealanders and others, when they were suddenly subjected to new environment, and had to adapt themselves to new social conditions, they became violent dipsomaniacs, lost their fine mental qualities, and died out. When you consider that the primitive portions of the Irish people within the last fifty years have come suddenly into intimate contact with advanced ideas in politics and with advanced peoples, the Americans, through the medium of the newspapers and the influence of their own relations, it would seem surprising if some racial mental effect did not result. I do not admit that any real increase of insanity has taken place in Ireland, but if it has done so this cause is worth considering. In fact, what would in the ordinary course of things have needed many generations to accomplish has, through the strong force of American influence, been brought about in the short space of 50 years. In short, an integration of society often means disintegration of many individuals when they are not capable of adapting themselves to the great law of environment.

Dr. LAWLESS—I should like to make a few remarks on the facilities with which men who become lunatics in Scotland or in England can be transferred to the asylums connected with the district of Ireland to which they belong. Now the Irish Poor-Law authorities have no power whatever to transfer an Englishman or a Scotchman who has become insane to the asylum of his district in Scotland or in England. We get in Sligo a considerable number of patients who are natives of various parts of Scotland or England. We have a considerable number of Englishmen in our asylum, without any power to transfer them, and I think that this fact must be taken into consideration in estimating the increase of insanity in Ireland.

The PRESIDENT—Changes in the condition of life are really at the bottom of the increase of insanity in this country, be it apparent or be it real.

On Brain Pressure and Trephining. By T. CLAYE SHAW, M.D., Medical Superintendent of the London County Asylum, Banstead.

It is now several years since I first proposed the operation of trephining the skull in general paralysis of the insane, at about the same time that Dr. Batty Tuke independently operated for the same disease. Others have also performed similar operations, but the results have not been publicly recorded or collected. Sufficient time has not elapsed, nor have the cases been sufficiently numerous to determine the future of the operation, whether it is of sufficient service to justify its frequent employment or whether it must be dismissed to the limbo of useless remedies. I have published cases where considerable temporary improvement has resulted, where life has been prolonged, and distressing symptoms alleviated, and I propose to give to the Association the short details of a hitherto unpublished case where no candid critic could, I think, deny the improvement that I claim for him. This much may be said for the operation—that it seems harmless when carefully performed, no fatal result having, as far as I am aware, ever resulted. The apprehended after-results, as regards local tenderness, liability to injury at the trephined spot, bulging of the contents of the cranium, are phantoms which have no basis of fact. I fear, indeed, that we have not been bold enough in our measures. Mr. Harrison Cripps, who performed the earlier operations for me, recommends the removal of a much greater extent of bone, of a piece indeed about three inches square, and he would do it on both sides of the skull. Of the after results of removing so large a piece of bone I should have no more fear than I have of the present comparatively small area; the great objection I have to the removal of so much bone is the long time required for the operation. Another point is with reference to the time chosen for the operation. I think it should be done earlier, it seems hopeless to do it in the later stages, after there is much thickening of the membranes and destruction of tissue—as far, at least, as any hope of cure is expected, anything, indeed, beyond relief.

The sole ground for the operation is the relief of pressure; if there is no increase of pressure I can see no justification for it. Should it prove to be of advantage in

relieving pressure, then the operation should not be confined to cases of general paralysis, but should be extended to other cases of insanity, where unrelieved pressure leads to dementia. I present indeed to your notice a case of ordinary nerve disorder where I recently performed the operation, and in which some of the symptoms were relieved, though the case is still *sub judice* as regards finality.

The great question then to decide is:—Is there pressure in the earlier stages of general paralysis and in other forms of insanity? If there is, can any more direct means be taken to relieve it than by opening the skull?

The signs of pressure on which I would rely are:—

1st.—Pain. The dull, heavy, or throbbing pain that patients complain of seems from its character and diffuseness (it is commonly described as a “weight,” a “feeling of tenseness”) to be of the kind experienced in ordinary meningitis, where the flushed face and quick pulse and swelling of the brain denote pressure in a sense that cannot be doubted.

2nd.—The fact of flattened convolutions, seen after death, as the result of increased pressure and wasting combined.

3rd.—That in all the operations I have seen, except one, where trephining was performed for traumatic epilepsy, the moment the bone was removed the aperture was filled with a bulging mass of brain and membranes in which no pulsation could be noticed at first, but which afterwards pulsated freely when the membranes were incised and the fluid drained off. Can there be any more pronounced sign of pressure than this?

I must in truth state that after the operation I have seen no sign of bulging, but it must be remembered that both before and after the operation a large depletion has been going on; the patient has been prepared for the operation by keeping a recumbent position, his diet has been low, and during the operation itself he loses a good deal of blood from the scalp, besides a considerable quantity drained off from the brain itself, added to which is the pressure of the atmosphere directly on the soft tissue, the bone being removed.

I do not propose to go into the question of blood-pressure in the brain in health, beyond saying that whilst in ordinary untaxed cerebration the pressure is probably equal to about ten millimetres of mercury, the same cannot be said of disease. One of the potent agents in the circulation of the

brain is the molecular change due to the action of the elements, and when this is *constant*, as in worry, overwork, or actual inflammatory mischief, we have all the elements for causing pressure. Prolonged cellular action means increased flow of blood, swelling of tissue, and impeded discharge by the veins, and if this condition is permanent and unrelieved by sufficient rest the result is what pathology teaches us, dilated capillaries, gorged veins, and atrophied cells. After a time matters accommodate themselves, serum takes the place of wasted tissue, functioning ceases, and equilibrium is restored; *then* there is no pressure to speak of, except at odd times, when there may be a renewed flicker of excitement and a repetition of the process above described; but the mischief is now done, and the relief for drainage of fluid can be of little permanent advantage. Therefore I say that the earlier period of engorgement is the one when measures for relief should be undertaken. If proof is wanted of the statement that molecular change in the brain causes increased arterial circulation it may perhaps be well illustrated as follows:—In acute maniacal excitement with a rapid pulse it has been not uncommon to prescribe digitalis in large doses. Now here we may see the medicine given until the pulse becomes weak and intermittent, but there is no relief to the brain; let, however, sleep occur and the pulse at once becomes quieter, whilst the mental symptoms are alleviated or disappear. To the pressure of the brain may also be attributed many of the aberrations of function, for the relations of the parts to one another must be intimately disturbed, and if so their functioning must be irregular. When through continuance of the process atrophy results, nothing can be expected but what we see, *viz.*, dementia. French authors have particularly insisted upon this.

To the three signs of pressure above given I would now add that the symptoms themselves of acute insanity point to it, whether they be of the violent or stuporous form. But what, it may be asked, can be said of those cases where the insanity seems caused by purely debilitating instances, such as starvation, hyper-lactation, exhausting disease? What evidence is there of pressure here? Well, there are thousands of ill-fed and badly nourished persons round about us in daily life, but it does not appear that they go insane unless some special factor is super-added, such as hereditary taint, worry, or trouble, a factor that, when it

exists, sets up the greater degree of prolonged molecular change that leads ultimately to pressure. It may be that in debilitated states the volume of blood passing through the brain is diminished, and the brain thereby reduced in volume with consequent distortion of the arrangement of its parts, resulting in disordered function. In such a case, no doubt, compensatory serum would be supplied, but its relation to the brain substance would be different from that of the blood in proper conditions, and would tend to increase the pressure to which the brain is subjected by the withdrawal of its normal support. In such a case we cure the pressure by improving the quantity and quality of the blood, cause the brain to expand and resume its normal relations, and in doing so get rid of the compensatory fluid.

I believe that I am correct in saying that the specific gravity of the brain is increased in acute insanity; if so this is another fact pointing to increased pressure, for whether the increased density be due to swelling, effusion of inflammatory products, or larger amount of blood, the result must be the same, and this too whether the symptoms are of the excited, depressed or negative order.

In the gelatine casts shown in connection with this subject it will be observed that there is a marked depression over the seat of the trephined spot; this is due to the sinking in of the scalp at the place of the opening and to the fact that the thick fibrous membrane that supplies the place of the bone taken away is much thinner than the tissue removed, though it is very strong—so strong indeed is it that it practically becomes as firm as the bone itself, and thus quickly re-establishes the fault that originally existed. This, then, is one of the defects of the operation, that there is no continuous drainage, and this doubtless must be provided for if the operation is to be any permanent use, unless indeed a very large piece of bone is removed. In the two post-mortems I have had, it was found that the upper surface of the convolutions was firmly attached to the fibrous membrane just spoken of, thus preventing pulsation and probably accounting for any absence of bulging or other pressure sign.

It is difficult to conceive how any direct experiments to prove pressure can be made either by gauges or by the introduction of elastic substances into the holes made in the skull; probably the best is the one that we have naturally in the anterior fontanelle of an infant where crying and

struggling produce bulging, whilst states of exhaustion, diarrhoea or collapse show a manifest depression. It might be possible by an adaptation of the spring-balance to estimate the amount of pressure in these cases, but I am not aware that this has been done. In the case I am about to relate the patient says that on exertion he feels a swelling and pulsation at the trephine hole, but when at rest the appearance is rather that of a depression.

To quote Cappie, "keeping in mind that the mass of blood that can be drawn upon is limited, and that the enclosing space is rigidly fixed, one of the immediate consequences of any alteration in its distribution is *pressure*. If any set of vessels becomes more distended with blood the part involved must take up more room than before, and the tension of the centre must be increased. The brain when functionally active has an expanding tendency; under the influence of the commotion caused by flow of blood through the capillaries the bulk of the brain mass must be positively greater than when the organ is at rest."

I am quite sure that a surgical operation should be only resorted to when other remedies have failed, but if it be granted that pressure exists in acute insanity, either of the excited or depressed type, and ordinary means seem useless it would appear that nothing is left but the operation.

If the brain trouble seems connected with an impoverished state of the blood it will probably be relieved by tonic treatment, but in other forms of pressure where it has been attempted without success to lower pressure by purgatives and general lowering treatment, or cold applications, an operation would seem to be indicated. At any rate, a patient should not be allowed to lapse into dementia without its being tried.

In connection with this subject, it is right to mention some cases reported by Dr. Alfred Parkin, of Hull, on the treatment of chronic hydrocephalus by *basal drainage*, published in the "Lancet," July, 1893. He made an opening under the superior curved line of the occiput and to the right of the middle line, exposing the under surface of the cerebellum. To use his own words, "I can only describe the rapid recovery from what was almost complete coma to the relief of the intra-cranial pressure by the withdrawal of fluid." "The mode of operating (at the base) is extremely easy, and gives ready drainage at a place which is easily kept aseptic."

The first of two cases that I wish to bring before the meeting is that of a man, aged 32 years, a general paralytic.

He was admitted in April, 1882, with marked and characteristic mental and motor symptoms, and who during the early months of 1893 had epileptiform attacks of a serious nature, sometimes on one side, sometimes on the other. He was trephined by Mr. Lockwood, on March 19th, and he is still alive, and, though demented, able to go about and to read. An inch trephine was used, and I show the piece of bone removed (specimen). After the dura mater had been removed and some thickened pia removed, a trocar and cannula were pushed several inches into the brain in the direction of the lateral ventricle, but only a few drops of serum came through the cannula. When the piece of bone was removed the brain and membranes swelled up into the opening, and on incising the membranes a quantity of serous, clear fluid escaped. Not a single bad symptom appeared, and in a few days the man was about again. *Since the operation he has not had an epileptoid seizure of any kind*, and for some time the symptoms were relieved, i.e., the headache disappeared; he was able to hear much better, and became much more intelligent. After a time, as usual, the hole became firmly closed by fibrous membrane, but notwithstanding this there has been no return of the fits. In all human probability but for the operation the man would have died long ago, but here he has been going about as usual, and it seems almost impossible not to connect the cessation of fits with the operation, which was done more than twelve months ago. I produce a cast in gelatine of the present state of the head, showing the scalp depression.

Since writing the above this patient died from gradual exhaustion a few days ago, but there was no return of the convulsions. It was found post-mortem that the brain substance was quite adherent to the fibrous membrane, so that secretion of fluid was impossible. In this last particular we seem to have an argument against keeping the wound open, for it would appear as if after a time there is no chance of fluid being secreted in what was the sub-dural space.

The next case is that of a man, aged 28 years; admitted June 24th, 1892.

His symptoms were of great pain over a definite part of the head, with feeling of tension and impulse to commit acts of violence—no delusions or hallucinations. There was some history of injury at an earlier date over the spot where the pain was felt, but no depression was to be felt. Some convulsions occurred about two months after admission, but they were probably hysterical in character. Though he never did actually commit any act of violence, he declared that it was only with great difficulty that he restrained himself. He readily submitted to all forms of treatment, being extremely anxious to return to work, but, nothing proving of any avail, I proposed to him the removal of a piece of bone from the painful part, and to this he

agreed. On January 7th, 1894, he was trephined by Mr. Lockwood, and I produce the piece of bone removed. From external appearances before the operation one would not have said that there was much sign of pressure; his pulse was quiet, his temperature normal; he seemed pale and rather anæmic, as if he had been suffering from exhausting disease, but when the skull was opened the subjacent brain and membranes (which appeared to be healthy) bulged prominently, and *there was no pulsation* to be seen. On opening the dura mater and dissecting it away a considerable quantity of fluid escaped, and soon afterwards pulsation returned. The wound was closed in the ordinary way, and the usual rapid recovery ensued without any bad symptoms. The result has been complete freedom from headache, so that he is now able to read any length of time without fatigue, but there has not been any material improvement in the impulsive feeling.

I quote the case especially to show that pressure may exist in persons with melancholia and absence of arterial tension as indicated by the pulse at the wrist. The gelatine cast accurately shows the present state of the head with the depression. The fibrous tissue in the opening is not, however, at present very firm, and the patient says that on exertion he feels pulsation and the rising of a sort of swelling at the foramen. With the consolidation of the fibrous tissue these symptoms will disappear, and it will then be interesting to note whether the headache reappears. Had it not been for the ocular evidence of pressure it might have been said that the case was one of pure hysteria, and that any benefit derived was from the operation *per se*; even if this were so it would be justifiable, but I fear that there is organic disease, and that the tension is the result of it. In order to test the effect of withdrawing the atmospheric pressure upon the soft tissue over the opening, I used a cupping glass of 1.75 inches diameter at the brain, when on exhausting the air the depression was at once obliterated, the skin rising well up to the adjoining surface of the scalp; the skin was also slightly reddened, and pulsation was very perceptible, this latter fact pointing to the probable union of the convolutions and the superjacent tissue, as in the post-mortem that I described a few minutes since. At the moment when the vacuum was produced, and the skin and tissue rose to the level, a distinct failure of the pulse for at least three beats was noticed. In order to ascertain, if possible, the actual amount of brain pressure I introduced the patient to Professor Leonard Hill, of University College,

and under his direction the following experiment was performed:—A small glass flask was enclosed in a larger one, moulded so as to fit the curve of the scalp around the trephine-hole; the inner flask abutted on and accurately fitted the hole, and it was filled with water. This inner flask communicated with a mercurial manometer and with a pressure bottle, by means of which a bubble of air, serving as an index, could be made to move when the pressure on the scalp over the hole was increased or lowered. The desired object was to find what pressure would be needed to be exerted upon the fluid in the inner bottle in order to depress the pulsating brain in the foramen. The fluid in the bottle was a solution of salt, 0·6 per cent. When a vacuum was made in the outer flask the skin of the scalp rose considerably, and effectually cut off the inner flask containing the fluid and resting closely on the tissue over the hole from the chamber in the outer vessel. It was found that the pressure required to drive the skin and tissue over the hole down was equivalent to 6 millimetres of mercury. Dr. Hill found that in the dog the pressure was equal to about 10 m.m. of mercury. Some of the difference may be accounted for by the pressure being taken in the male subject in the upright position, and possibly in the fact that the normal brain tension has been lessened by the changed conditions due to the operation, for it is evident that there is now no sub-dural space, but the actual tissue of the convolutions is firmly adherent to the under surface of the membrane formed in the hole made by the trephine. It can scarcely be that the normal brain pressure in man is less than that of the dog (viz., 10 m.m. of mercury), and if so, then the operation has clearly reduced the normal pressure. It is curious to note how injurious are the effects when even a small addition to the normal pressure is made. Thus, Dr. Hill found that when more than 0·5 c.c. of saline fluid were introduced into the cranial cavity, there was a lasting rise of cerebral pressure and these physical results, viz., slowing to stoppage of the respiration, rise of blood pressure and slowing of the heart, and alteration of the size of the pupil; whilst greater amounts than 1 c.c. caused a maintained rise of arterial pressure, sighing, and death. Another interesting and unexpected result of Professor Hill's experiments is that the blood vessels, *and not the lymphatics*, form the pathway of absorption of fluid from the sub-dural space, as shown by the fact that a methyl blue solution of salt, driven into the sub-dural space at the rate

of 1 c.c. a minute, will appear in the urine in about 30 minutes.

Dr. Hill makes a further note on the above case which is interesting in relation to the whole subject:—Suspecting that the upright position of the patient had much to do with the diminished tension, as shown in the dog, he experimented on an animal placed in three different positions. I give his remarks verbatim:—

He says: “The conclusion I draw from Wednesday’s experiment is that the patient’s intra-cranial pressure in the upright position is about zero, rising a few millimetres of Hg. above zero in expiration, or coughing, or when he lowered his head. The cardiac and respiratory movements also oscillated about zero.

“I found yesterday in a large dog that the normal intra-cranial pressure was (1) 10-12 m.m. Hg. when the animal lay horizontal; (2) zero when the animal was tilted with the head highest; (3) 20-30 m.m. Hg. when tilted with the head lowest.

“The patient’s skin is depressed over the hole unless coughing or excited; he has a low tension pulse and, therefore, a low tension brain. On the other hand, in a healthy infant the fontanelle is slightly full. I have no doubt if we measured the patient in the horizontal position we should find the pressure positive as in the dog. According to all my work, the normal intra-cranial pressure is the same as the blood pressure within the capillaries of the brain.

“The blood pressure is the only possible origin of intra-cranial pressure, unless one conceives that the cerebro-spinal fluid is *actively secreted* as the saliva is to a pressure higher than the blood pressure. My experiments are very decidedly against this, because serum introduced within the cranial cavity with a pressure higher than the normal intra-cranial pressure, is at once absorbed by the blood vessels, and the intra-cranial pressure, therefore, rapidly returns again to normal.

“Most of the force of the heart is spent in overcoming the elasticity of the cerebral vessels; what remains is the intra-cranial pressure.

“A foreign body, such as a bag of fluid or a blood clot, can, if forced into the cranium, on the other hand, permanently raise the intra-cranial pressure, because non-absorbable. When the foreign body is driven in, blood must

be forced out of the brain, or cerebro-spinal fluid from the cavity, in order to make room for it; when blood is thus forced out of the capillaries of the brain the intra-cranial pressure becomes that of the arterioles or arteries.

"Cerebro-spinal fluid, when drawn off from the cranium, is very quickly re-excreted. A dog thus may yield 100 c.c. or more cerebro-spinal fluid in 24 hours, and thus, if an animal is trephined and cerebro-fluid drawn off and the hole closed, the fluid rapidly collects again and the blood-pressure becomes normal.

"I think some of these points must be brought into very careful consideration in discussing any physical alteration of brain-pressure by trephining."

It thus appears that the patient's pressure being zero in the upright position corresponds with that of the dog in the same position, and it would seem that in ordinary circumstances of health and rest the intra-cranial pressure is zero, rising when the blood pressure is increased, as by change of posture, or running, coughing, excitement, or inflammatory action.

No advantage is gained by leaving the hole open, whereas in syncope the proper position for the patient is either a horizontal one or with the head pointing downwards; in apoplectic effusion, etc., where it is desirable to lessen the blood pressure, the head should be raised.

I am much indebted to Dr. Bond for his kindness and skill in preparing the plaster and gelatine casts, and for reading this paper in my unavoidable absence.

On Cerebral Pressure. By JOHN MACPHERSON, F.R.C.P.E.,
Medical Superintendent, District Asylum, Stirling.

The term cerebral pressure requires more exact definition, and ought, I think, to be entirely superseded by a more generic, comprehensive, and intelligible name. It should not be taken in the limited sense of only including fluid pressure, but should be extended so as to embrace a large variety of clinical and pathological conditions.

It may be either acute or chronic, but when acute it falls to be dealt with entirely by the surgeon and general physician. When chronic it more often comes under the notice of the psychiatric physician or the neurologist. Generally speaking, when, in addition to continued mental

disturbance, we in our specialty meet with a case *which presents persistently two or more* such symptoms as the following—headache, vomiting, vertigo, ataxia of cerebral origin, paralysis, local or general convulsions, unequal, contracted, or irregular pupils, suffused face, and, above all, optic neuritis—then we have to do with a state of what is now, for want of a better term, called cerebral pressure. I do not say that all cases which present these symptoms should be surgically interfered with, nor am I maintaining that surgical interference would be likely, even if timeously applied, to benefit all such cases; but I do unhesitatingly maintain that many cases manifesting such a combination of symptoms as I have enumerated have derived undoubted benefit from surgical operation both in the experience of others and to a very limited extent in my own experience.

It will be urged against this form of treatment that it is empirical, and that it has no rational or extenuating basis founded upon either physiology or pathology. It is true, perhaps, that in the present very imperfect state of our knowledge no proper explanation of the *modus operandi* of surgical operation in the relief of such cases can be put forward. We are, therefore, met with the taunt of illegitimately experimenting upon the human subject. There appeared an editorial in last week's "British Medical Journal" which is so *apropos* of the present argument that I quote a sentence or two from it, as follows:—"To the best class of practitioners every operation done, every bath ordered, every pill or potion prescribed is an experiment to be watched and noted and to serve as a stepping-stone to greater knowledge, which shall render such experiments in the future more exact and their results less uncertain. . . . To limit operative or any other form of treatment to such as is thought sure to be successful would mean a death sentence to untold numbers of sick people who at present are able to obtain a cure at the expense of running some amount of risk. The mortality in cerebral surgery for the relief of pressure generally has been so slight, or so conspicuous by its absence, that even the anti-experimental argument falls to the ground."

If, again, no operation is to be performed, the precise physiological resultants of which cannot be accurately detailed, then the profession generally must abandon such useful resources as nerve-stretching in sciatica, iridectomy in glaucoma, the partial removal of pleuritic effusions, and a

host of other effectual procedures too numerous to mention.

It has always appeared to me that the attempt made to explain the good results obtained by trephining in general paralysis have not added to the recommendation of the operation or to its general acceptance by the profession. General paralysis is probably not an entity, but a variety of pathological conditions manifesting more or less a uniformity of clinical symptoms, and these symptoms may, I think (at any rate I put forth the suggestion for what it is worth), be dependent upon that undefined underlying condition which, for want of a better name, we call cerebral pressure. It is a mistake to suppose that all cerebral pressure means fluid pressure. No assertion on the part of the advocates of interference by the surgeon in this condition could be more baneful, and none more innocuous could be put forward against it by its opponents, than that this procedure is intended solely for the removal of intracranial fluid. Fluid-pressure undoubtedly has to be reckoned with, and in many early cases of general paralysis it undoubtedly exists, but in others, on the other hand, it is either not apparent or does not exist, or only in small quantity. Yet all cases benefit, temporarily or permanently, by operation.

It seems to me that cerebral pressure, so far as we, as a specialty, have to do with it, is associated with the following conditions:—

1. Fluid-pressure, either sero-lymphatic or hæmorrhagic.
2. Cortical erethism.
3. Limited epilepsies.
4. Mechanical pressure by tumours.
5. Conditions as yet unexplained, in which the clinical symptoms of pressure are manifest.

1. With regard to fluid-pressure, it is not at all necessary that I should here proceed to thrash out all the old arguments for and against its relief surgically. Mainly I adhere to the position taken up by Mr. Wallace and myself in our article upon the surgical treatment of general paralysis in the "British Medical Journal," Vol. ii., 1893, p. 167, where we maintain that there are two kinds of fluid, namely: (1) An inflammatory exudation; and (2) A compensatory exudation.

The inflammatory exudate is sceptically referred to by the opponents of the inflammatory theory of general paralysis,

wherein I venture to assert that they overshoot the mark in their attempt to overthrow an argument that is obnoxious to their preconceived opinions. Granting that general paralysis is primarily of nervous origin, the results are identical. The dispute is not about results, but about causes, and first causes are as difficult to attain to as first principles. If any one chooses to assert that general paralysis is of primary nervous origin he is welcome to his assertion—it cannot be gainsaid; but it no more affects the question of the resultant symptoms, or the form of treatment, than if it were to be asserted that it was of atmospheric origin. There is in any case a pathological condition analogous to, or parallel to, inflammation, and the operation of trephining in some cases cures, in others arrests, this condition. It is admitted that in some cases it does neither. With regard to origin, however, I should like to propound to the advocates of the nervous theory of the origin a solution of the difficulty—Why it is that, if there is always such cortical degeneration, there should frequently be met with such marvellous intermissions and periods of mental lucidity in the course of the disease. But accepting the nervous theory again for the sake of argument, we find it quite fits in with the condition.

According to Meynert, Heubner, Duret, and other authorities, each functionating part of the cortex is a vasomotor centre, and may act as such to the extent of congesting and inflaming its environment, and of producing the pathological and clinical symptoms in question. How, then, does surgical interference affect such a state of matters? I reply, in two ways:—1. In the same way as depletion relieves any other local inflammatory condition: and 2. In the same way as iridectomy or, as in some cases, puncture of the sclerotic relieves glaucoma. We are not concerned with the *modus operandi* in the one case more than in the other two instances. No doubt iridectomy has been a great advance upon the old system of tapping through the sclerotic in the ocular disease, and we hope to see a surgical advance upon the present methods of operative interference in general paralysis. Dr. Alexander Robertson, of Glasgow, has published a case in which counter-irritation of the scalp has been effectual in curing a well-marked case of general paralysis—another argument on the side of the inflammatory theory. Finally, when the fluid is largely compensatory it appears to me, at any rate, to be useless to interfere.

2. The temporary relief given in cases of growing tumour and the permanent relief in stationary tumours is too well known for me to do more than mention here, but in the successful treatment of fracture of the base by trephining I think we have a most useful hint as to the course we ought to pursue in cases of cerebral tumours with mental symptoms, the localization of which is obscure.

3 and 4. Cortical erethism and limited epilepsies. Erethism of limited areas is something more than a theory, and it may be said to stand to modern cortical neurology in the same relation as the Darwinian theory does to natural science. If we can localize an erethismal area it ought to be as distinct a duty to cut down and trephine over it as it is to perform the same operation in Jacksonian spasm. Indeed, it need hardly be doubted that Jacksonian epilepsy is accompanied by an erethism of a motor-cortical area. The exposure of the area has in many instances cured, and in others relieved, the fits. Therefore, if the removal of local pressure relieves a limited epilepsy, it is not too much to infer that a unilateral hallucination (say auditory) might be cured by trephining over the superior temporo-sphenoidal convolute, where at least one terminal associated area might be expected to be found in a state of functional erethism.

The following case of limited epilepsy was successfully treated in the Stirling Asylum:—A. N., aged 35, was admitted two years ago with epileptic insanity. The fits were generally limited to the ring and little finger of the left hand, sometimes extending to the arm, and occasionally the left leg became implicated. The centre of the fingers of the left hand was exposed and the localization verified by electrical stimulation, which unfortunately was a little strong, and produced a convulsion. The convulsion caused so much local congestion that, although it was intended to remove the portion of the cortex involved, only a very minute speck was cut away, as the part bled profusely. The patient made a most satisfactory recovery from the effects of the operation. He had numerous fits for the first fortnight after operation, as is generally experienced. He was discharged recovered in three months, and has for 18 months been earning his livelihood as a tramway conductor in Paisley, been free from fits, and perfectly sane.

5. Unexplained conditions in which pressure symptoms are very apparent are quite common. We cannot even classify them. Post-mortem examination reveals nothing

extraordinary. The patients often die comatose. They may actually be or simulate congestion, serous apoplexy, cortical apoplexies, or uræmic poisoning. They demand an attempt at surgical interference. Recently there have been recorded cases in which that most fatal of all cerebral diseases—tubercular meningitis—has been cured by trephining. Tubercular meningitis presents generally a very meagre pathology, and frequently very little fluid, yet it is one of the most specific examples of a cerebral pressure disease. It singularly exemplifies what I have already said upon the obscure nature of the cause of what is known as pressure. Now, if this disease can be shown to respond to surgical treatment, why not many others—why not, for instance, katatonia.

The table on the opposite page is a *résumé* of the cases operated on at Stirling. All the operations were kindly performed by Mr. Wallace, Assistant Surgeon Edinburgh Royal Infirmary. Five were cases of general paralysis, one of epilepsy, and one of automatic rhythmical movement of the right arm, accompanied by chronic mania.

All the cases recovered satisfactorily from the operation, except the last one, which developed a softening in the white matter, which ultimately proved fatal.

Of the five cases of general paralysis one, that of a female, who manifested very slight symptoms from the first, which misled us into thinking it was an early case, whereas it was well advanced when operated upon, ran the ordinary course of the disease unaffected by the operation. Another male case so advanced at the time of the operation that the escape of compensatory fluid left a space between the pia and the skull-cap equal to half-an-inch. The patient lived for 18 months after operation, and the course of the disease was evidently checked. The other three cases are still living, and the disease has been arrested at the stage it was in when operation was performed more than $2\frac{1}{2}$ years ago. That is to say they are still insane.

I cannot pretend to deduce any valuable clinical facts from the experience of so few cases, but on the other hand the results are strikingly significant, and suggest the possibility that if we could only manage to diagnose general paralysis at a sufficiently early stage we might then by operative interference check its aggressive march.

I conclude by remarking generally as follows:—

1. That what we know of the pathology of the condition

TABLE SHOWING CASES OPERATED ON AT THE STIRLING ASYLUM, AND THE RESULTS OF OPERATION.

NAME.	ADMISSION TO ASYLUM.	DISEASE.	OPERATION.	PHYSICAL CONDITION AFTER OPERATION.	MENTAL CONDITION AFTER OPERATION.	REMARKS.
Catherine C. or L.	12th July, 1891	General paralysis.	2nd Oct., 1891. Opening on left side. Membranes incised.	No change.	No change.	Died of pr. greessive paralysis, 6th Jan., 1892.
Job H.	25th April, 1891	General paralysis.	20th Oct., 1891. Opening on left side. Membranes incised.	Arrest of paralysis. Distinct improvement in nutrition and nervous tone.	Arrest of excitement. Delusions persist.	In the same condition at this date (Aug., 1894).
Thomas P.	26th Feb., 1891	General paralysis.	14th Nov., 1891. Opening on left side. Membranes incised.	Arrest of paralytic progress. Nervous and muscular improvement.	Delusions persist. Subject to periodic attacks of excitement.	In the same condition at this date (Aug., 1894).
Peter McL.	22nd Sept., 1891	General paralysis.	11th Oct., 1891. Openings on both sides. Membranes incised.	Temporary arrest of nervous symptoms.	Temporary mental improvement. Remained facile.	Died of progressive paralysis, 26th May, 1893.
Robert R.	27th July, 1892	General paralysis.	23rd Jan., 1892. Openings on both sides. Membranes incised.	Arrest of paralysis. Physical improvement.	Subject to periodical attacks of excitement of short duration.	In the same condition at this date (Aug., 1894).
Archibald N.	2nd Sept., 1892	Jacksonian epilepsy	13th Nov., 1892. Removal of centre.	Complete arrest of fits after first fortnight.	Disappearance of symptoms of mental aberration.	Discharged six months afterwards completely recovered, and is earning livelihood at this date (Aug., 1894).
Jane McK. or F.	10th July, 1893	Mania, with automatic movement of right arm.	13th Dec., 1893. Removal of centre.	Paralysis of motion of right arm set in five days after operation.	No change.	Died 3rd Jan., 1894, of cerebral softening. The portion of cortex removed at operation, as well as the rest of motor cortex of left side, examined after death showed advanced degeneration.

known as cerebral pressure, as well as the facts of general experience, seem to indicate that it is capable of relief by surgical interference.

2. That further and more extensive experience of the results of operations for the relief of cerebral pressure is desirable in the present state of our knowledge.

3. That such operations are quite justifiable on the ground that they are eminently safe, and practically unattended with any mortality if carefully performed.

Trephining in Meningitis, with Notes of a Case. By JOHN KEAY, M.D., F.R.C.P.E., Medical Superintendent, District Asylum, Inverness.

The patient was admitted into Mavisbank Asylum on the 5th of October, 1891, suffering from monomania of suspicion of probably about a year's duration. He was a well-nourished man, 50 years of age, 66 inches in height, weighing 160lbs.

Physical examination, against which he strongly protested, did not reveal any disease of the bodily organs, but it was noted that he had auditory hallucinations, and that his pupils were equally contracted. The special senses were moderately acute. Mentally he was an excitable, irritable monomaniac, full of delusions of suspicion. He charged people with hatching plots to do him injury, was extremely angry, and answered the most civil remark with a torrent of abuse, and threats of legal action, or physical violence.

In this excitable, delusional condition of mind, and in moderately robust bodily health, the patient continued until the middle of February of this year, when it was observed that his appetite was failing, and his weight diminishing. He also became more restless at night. Physical examination, with the object of discovering if possible the cause of this deterioration, was attempted, but the patient resisted with determination, and declared that there was nothing the matter with him. A week later it was observed that he frequently placed his hand on the right temporal region, and at the same time it was noticed that there was a slight purulent discharge from the right ear. Attempts were thereupon made to examine the ear, and to apply appropriate cleansing treatment, but, as before, all interference was strenuously resisted, and caused much excitement. He insisted that he had no pain or discomfort, and that he had had several times a similar discharge in previous years, which quickly cured itself, and did not inconvenience him. On 26th February it was observed that there was ptosis on the right side, and also that the discharge had

ceased. The patient still insisted that he had no pain, but his hand was frequently placed over the ear and temporal region, and it was noticed that he was partially, if not altogether, deaf on the right side.

The patient remained in this condition until an early hour on the morning of the 5th of March, when he was found in a semi-comatose condition. He could not be roused to answer questions, nor could he swallow. The pupils were small, and reacted feebly to light. There was well-marked ptosis on the right side. The mouth was drawn a little to the left, indicating a slight amount of right facial paralysis. The arms and legs were flexed, and he rolled his body from right to left. The neck was rigid, and the head slightly retracted. There was a little swelling, and apparently tenderness on pressure over the mastoid bone, and any movement of the head seemed to cause pain. The meatus contained some semi-liquid purulent matter. The temperature was 101° F., the pulse 84, and respiration 18.

The patient being in this grave condition, our Consulting Surgeon, Dr. Joseph Bell, after a careful examination, agreed that the case was one of meningitis, arising from the purulent otitis media, and probably involving not only the basal membranes, but also those of the cord. Notwithstanding its hopeless nature, however, it was decided that the skull should be opened, so as to obtain the removal, if possible, of some of the purulent material, and thus to—temporarily, at least—relieve the patient's most urgent symptoms. He was, therefore, put under chloroform, and after very careful cleansing precautions Dr. Bell trephined the skull over the sigmoid groove, about half-an-inch posterior to the external auditory meatus, examined the sinus, which appeared healthy, and opened the dura. A slight discharge of purulent bloody fluid took place, and continued after antiseptic washings of the wound, and for several hours after it had been dressed and the patient returned to bed.

The further history of the case may be shortly told. The patient vomited a little half-an-hour after the operation, and the sickness recurred several times during the day. His power of swallowing considerably improved, and he took milk in small quantities freely. The ptosis became less marked; he regained consciousness, and spoke sensibly. His general condition seemed materially improved. At night, however, the temperature rose to 102° F., and the pulse rate to 130. He became restless, tossing about a good deal. On the morning of the 6th he had a slight rigor, followed by profuse sweating; temp. 102.2°, pulse 110. Dr. Bell again saw the patient, examined and dressed the opening in the skull, from which there was still a slight discharge, and decided that there were no grounds for hoping that improvement would follow any further surgical interference. The patient gradually became completely unconscious, and died at 5 p.m.

Autopsy.—The head alone was allowed to be examined. On removing the calvarium the dura mater was found extensively and firmly adherent, and it was somewhat injected. The cerebral convolutions

were softened, particularly those of the temporo-sphenoidal lobe on the right side. The walls of the ventricles were also soft, and they contained a quantity of semi-purulent fluid. The sinuses were not thrombosed. The pia mater at the base was much congested, and covered with pus. There was no localized abscess. The case, in fact, was one of diffuse, suppurative, lepto-meningitis, having its origin in the middle ear, and spreading thence by infection to the basal membranes, and by infection and gravitation to those of the spinal cord.

Remarks.—The foregoing case is none the less instructive because it was unsuccessful. In the first place, on contrasting the condition of the patient when suffering from simply a curable inflammatory affection of the tympanic cavity with his state when comatose from the practically incurable one of diffuse cerebro-spinal meningitis, one is forcibly taught the lesson that such an apparently slight and unimportant ailment as a "running ear," which is apt to be looked upon more as an inconvenience than a disease, is, as Professor Macewen* says, "as dangerous as a charge of dynamite in the mastoid antrum and cells." Chronic otorrhœa should be regarded as a disease in which vigorous treatment is demanded, first by the ordinary cleansing methods recommended by aurists, and then, if the discharge persists, and particularly if it is offensive, containing pathogenic organisms, or osseous *débris* indicating erosions of the bony walls, the case should be taken in hand by the surgeon. The mastoid antrum and cells should be opened and thoroughly cleansed, the whole of the tympanic cavity explored, and everything diseased, including even the ossicles if necessary, freely removed. This operation may be said to be quite free from risk to life, and though the sense of hearing may be impaired or destroyed on the affected side, this is a small matter when compensated by the removal of a disease which at any moment might infect the meninges of the brain and cord and destroy life itself. Even though it should be found that all diseased tissue cannot be removed, a free outlet for discharges is secured, and a barrier of connective tissue is formed to protect more vulnerable parts.

Another well-recognized fact which was brought out in this case is that the insane may suffer from the most serious and painful maladies without one's attention being called to them by the complaint of pain. Here was a man with an

* "Pyogenic Diseases of the Brain and Spinal Cord," p. 293.

affection which must have given rise to considerable pain, and probably caused agonizing torture, who not only did not complain of it, but denied that he had pain, or even felt discomfort, and resisted with all his might every attempt at alleviation.

As to the operation for the cure or relief of meningitis, unless it be undertaken very early, it is, of course, more or less a forlorn hope. The disease is an exceedingly fatal one, whether left to itself or treated by palliatives. Martin Barr* reports 13 recoveries out of 51 recorded cases. Charlton Bastian† puts the mortality as high as 90 per cent. Vigla‡ reports 30 deaths out of 39 cases.

On the other hand Macewen§ reports six cases of infective purulent lepto-meningitis, without spinal involvement, which were operated upon, and all of which recovered. Other six cases which were not operated upon died. The same surgeon reports five cases of *cerebro-spinal* lepto-meningitis operated upon, one of which recovered. A clear case is, I think, therefore made out for operation in all these cases, and the earlier it is undertaken the better the chances of recovery. If operated upon before the disease has become general, recovery is probable, but if the purulent inflammation has extended to the cord recovery is improbable, even with operation. Without it the disease is absolutely fatal.

In cerebro-spinal meningitis Macewen suggests opening the spinal canal and membranes at various points, draining away the pus, and irrigating the membranes by introducing antiseptic solutions into the cerebellar intra-dural space, which would find exit through the previously-made openings into the spinal canal and membranes. This daring operation has not yet been even attempted, but in these days of wonders performed in cranial and spinal surgery one would not be astonished to hear of successful cases treated by some such operative procedure.

Mr. W. THORNLEY STOKER (President of the Royal College of Surgeons, Ireland)—Your President has kindly asked me to take part in this discussion, and I have to apologize for appearing without certain facts that I could have put before you. He knew that I have been engaged a great deal in operating upon the cranium. But I am not prepared to say if there is intra-cranial pressure in the earlier stage of general paralysis. In any case where pressure exists the operation of trephining is a logical and justifiable procedure. I feel very strongly upon this point. The operation is one that is in most cases practically

* "Cerebral Meningitis," p. 43.

† "Quain's Dictionary of Medicine," p. 945.

‡ "Actes de la Soc. Méd. des Hôpitaux de Paris," 1865.

§ "Pyogenic Diseases of the Brain and Spinal Cord," p. 330.

free from danger, and need not be approached with any great fear as to the possibility of immediately unpleasant consequences. Now, I have been very much struck, even in cases where I failed to do any permanent good, by the relief by which the operation is followed. I can look back to operations for intra-cranial tumours where life was prolonged and the conditions that existed were relieved. I have here a photograph of a boy, 7½ years of age, who 2½ years ago was kicked by a horse in the forehead, in the right frontal region. He sustained a depressed fracture which was not elevated, and began to suffer from epilepsy. He was brought to me last month, when I removed the piece of bone from the place where the cock of the horse shoe had depressed it, and found no perceptible injury to the brain itself. When I say that this boy has had no fits since the operation, I do not intend to present it as a case of cure—we will talk about that in a year or two hence—but it shows the effect of relief of pressure. The amount of additional space given to the brain in this case, having regard to the moderate size of the trephine hole, is exceedingly small, and yet it has up to the present prevented any recurrence of the fits. I am entirely opposed to the idea of implanting either a trephined piece or any of it in the hole. No matter how carefully the operation is performed a certain amount of the fragments may necrose afterwards. In early life a considerable amount of bone matter is secreted, and the size of the trephine hole diminished. But there is another matter—attention has been called by Dr. Claye Shaw to it—that is, that the membrane which fills the trephine hole does not equal in thickness the bone which has been removed, and thus greater increase of space is given by allowing membrane to close the trephine opening than if bone be implanted.

Dr. ANDRIEZEN—Supposing one part of the skull is depressed by injury, we have one condition of pressure, viz., of rapid and sudden development. Then we have a general and rapid increase according to the amount of general intra-cranial pressure. But on the other hand, supposing we have an abscess somewhere in the substance of the cortex, or deeper down, we have another state of affairs which may produce an increase of pressure in the elements in the immediate neighbourhood, and yet, owing to compensating causes, may not produce general intra-cranial pressure. Again when from effusion within the ventricles the cerebral envelope is expanded and pushed against its bony walls, we have another condition of intra-cranial pressure. Now, when we speak of increase of intra-cranial pressure in various forms of insanity, in what respect are we to understand this term? In the earlier conditions of general paralysis the distinct and unmistakable condition which we can recognize as pathological is a change in the peri-vascular region. Then one does not find an increased amount of fluid in the brain-substance inside or outside the cortex. A little later on we have an increase of fluid in two places, viz., (a) outside the cortex in the pia-arachnoid vessels, and (b) within the substance of the cortex. The whole substance oozes on section. But one case was tried at Wakefield, and there was nothing to indicate that the danger was averted, for the pia-arachnoid at the seat of operation showed no excess of fluid. It was not swollen or infiltrated with fluid. On the other hand, in undoubted cases of intra-cranial pressure (I am not referring here to general paralysis, of course) the evidence is remarkably conclusive—immediately the bone is removed the dura mater bulges, and the brain substance itself bulges when the dura mater is opened. And when the tumour is excised, or the abscess let out, as the case may be, the brain substance returns to its normal condition, and normal pressure is restored. In a case where, from increase of pressure following unilateral hemorrhage or abscess, the pupils were unequal, immediately on relief the pupils became equal. Upon the operating table this has been again and again observed. I have seen it in eight or ten cases. The same thing occurs in conditions of unilateral increase of pressure from tumours; and the experimental work of Horsley and Spencer (1890) shows that pressure symptoms are correlated to pupil symptoms. Now, have we anything of that nature to guide us in insanity, any symptoms com-

parable to these in value? We have, in general paralysis, inequality of the pupils. But the pupils in such cases vary from day to day. Reference was made to optic neuritis. I am not sure of the value of that symptom. One may, or may not, have optic neuritis. It may result from toxic effects, or trophic changes. We are not at present justified in assuming that in cases of general paralysis the apparent remissions after trephining should be put down to the relief of intra-cranial pressure. On dogs and on monkeys we can increase pressure and affect the pupils very uniformly; but in clinical cases we have not any certain indications to make us sure that there is increase of intra-cranial pressure. Further, general paralysis, which begins with spinal symptoms much like tabes, shows that it is a system disease; and I think the time has not yet come when we can accept the statement that general paralysis is curable by the trephine.

The GENERAL SECRETARY—I have had an opportunity, in the West End Hospital for Nervous Diseases with which I am connected, of seeing four operations on the skull of a child who suffered from intra-cranial pressure. The first extended from the middle of the skull forwards, and after a fortnight it was extended backwards. Then the surgeon made another operation about half-an-inch from the former, on the right-hand side, forwards and then backwards. So that at the end of about a month the child had two fissures in the skull. Of course there was a rise of temperature after each operation; but, treated antiseptically, the child did very well, became lively and regained sight, and at present it has improved. I don't think that we could say the same thing with reference to a microcephalic skull, because we have not only the small brain, but other symptoms to show that it is a disease of the whole system. Of the sixty operations performed in these cases only five or six improved.

Dr. MERICER—My opinion in regard to these operations is already known, and I see no reason to alter it. But I should like to add a small contribution to the debate with regard to the pupillary symptoms mentioned by Dr. Andriezen. In the London Hospital we used to have a large number of cases brought in suffering from coma from various causes, and the conditions which are laid down in the text books as indicative of intra-cranial pressure were found to be absolutely unreliable. In some cases it was found that, by pouring water on the face, the dilated pupil could be made to contract; and that by slapping or pinching the face, or twitching the hair, the contracted pupil could be made to dilate. The condition of the pupils could be altered again and again in the course of half-an-hour. I submit that this symptom as indicating intra-cranial pressure is quite unreliable.

Prof. BENEDIKT—As I have proved long ago neuroretinitis is not a symptom of pressure. A little tumour may cause neuroretinitis, and during the growth of the tumour the neuroretinitis may disappear, *e.g.*, by mercurial inunction. Headache, in cases of intra-cranial disease, is the result of a complicated connection between internal irritations of the brain and the circulation in the skull, as is proved by the dependence of the growth of the skull on the growth of the brain. One cannot speak in general terms of cerebral pressure. It cannot be severe, for in that case the great veins would be compressed, and we should have asphyxia of the brain. But there is a special mechanism for preventing great oscillations of pressure, positive and negative. This mechanism, as I have explained, is the choroid plexus, which is a secretory organ, and the secretory function is excited when pressure becomes negative, while absorption occurs when pressure becomes greater. Of the same nature is the function of the cells of the meninges. They secrete and absorb intra-cranial fluids. An excess of intra-cranial fluids therefore proves a diminution of pressure in the substance of the brain. Finally, I beg my colleagues not to consider the empirical question of trephining in general paralysis entirely from the theoretical point of view.

Mr. SWANZY—I shall refer to one or two points which occur to me in connection with so much of the discussion as has taken place since I came into the

room. Even small tumours in the brain are capable of giving rise to optic neuritis, but it is thought that this occurs when the tumour gets to the surface of the brain; while one which is of some size, but not at the surface, does not produce optic neuritis. Well, if this be the rule there are exceptions to it, as to everything, for I remember one of Dr. Thornley Stoker's cases where a large tumour of the brain reached the surface and gave rise to no optic neuritis before the patient's death. My own idea, and I think that it is the current one among ophthalmologists, is that tumour of the brain gives rise to optic neuritis if it grows rapidly. A slowly growing tumour is less likely to cause it. Then again the increase of the intra-cranial pressure depends not merely upon the presence of the new growth within the cranium, but also upon the presence of more or less internal hydrocephalus. In this way a small tumour accompanied by hydrocephalus might cause optic neuritis, whereas a large tumour without hydrocephalus might be unattended by optic neuritis. We know that hydrocephalus alone, without tumour or meningitis, may cause choked disc. It seems to be the opinion of some here that intra-cranial pressure is not the cause of optic neuritis. Well, this may not be the only factor, but I believe it to be the chief and initial cause. Dr. Andriezen has very properly stated that intra-cranial tumours probably give rise to toxic products, and that to these the neuritis may be mainly due. This view, first suggested by Leber, of Heidelberg, is very strongly held by some ophthalmologists. But these products, if they exist, are driven into the intervaginal space of the optic nerve by the increased intra-cranial pressure, and produce their deleterious effect locally. Professor Benedikt pointed out that tubercle at the base of the brain, that is to say, tubercular meningitis, is a frequent cause of optic neuritis. But this is not merely true for this kind of meningitis, but also for all kinds—the syphilitic, the rheumatic, etc. The increase of intra-cranial pressure in these cases must be insignificant, and the optic neuritis due to another sequence of events. It is true that neuritis has been seen to pass away and atrophy to come on while the patient ultimately died from the tumour of the brain. We assume in such cases that the optic neuritis passed away when the normal contents of the cranial cavity had gradually accommodated themselves to the abnormal pressure. I have had no experience of trephining in cases of tumour of the brain. But I would say from Dr. McEwan's work and that of Mr. Victor Horsley that it is a very desirable measure, apart from any intention to remove the tumour. It not only seems to lengthen the life of the patient, but to preserve a much longer possession of sight than could be expected otherwise. Its good effect on the optic neuritis is a strong argument in favour of the theory that increased intra-cranial pressure is the main cause of this neuritis in cases of tumours of the brain.

Dr. GEORGE M. ROBERTSON—I think that the papers and the discussion have rather passed away from the subject of cerebral pressure. I think that a more appropriate title would have been surgical interference in mental disease, and that the title selected is of the nature of a *petitio principii*; for increased cerebral pressure appears to be the only rational ground alleged for surgical interference. Has it been demonstrated that, before performing a surgical operation, we can with some certainty diagnose cerebral over-pressure? Among the symptoms quoted as proving the existence of this increased pressure is cephalalgia, but we know that this may be caused by anæmia and diminished pressure. There is no doubt that in former times many a case was bled to death on this false hypothesis, and we must not be led astray by similar error. Convulsions have also been mentioned, but we know likewise that convulsions may occur when an animal is bled to death, when there is certainly no over-pressure. Optic neuritis appears to be a frequent accompaniment of over-pressure, but it is not by any means an absolutely reliable symptom. Moreover in the very class of cases in which most operations have been performed, in general paralysis, it is not at all of common occurrence. In a case mentioned by Dr. Clay Shaw, fluid was found in the sub-

dural space—a common symptom in general paralysis, and one which I maintain is not a sign of over-pressure, but of diminished pressure. It is entirely compensatory; for normally little or none exists there, and in such an undoubted case of over-pressure as is caused by a large cerebral tumour, the dryness of the subdural space and the surface of the brain is a most remarkable and constant feature. Regarding the operation I believe that, if the pressure is caused by a solid growth, a trephine hole is not enough (as a dense membrane very soon forms), but that a large portion of bone should be removed on both sides. If the pressure is caused by cerebro-spinal fluid, which I very much doubt, it may be relieved by draining from the subarachnoid space of the spinal cord much more efficiently, and for a longer time. There has never been successful drainage from the subarachnoid space of the brain. If the pressure is due to the blood, the most frequent cause, I do not advise surgical interference at all, but more powerful, safer, more reliable, and more permanent medical agencies which act on the heart and blood vessels and blood pressure. It must not be concluded from my remarks that I am opposed to these surgical operations; I merely state that surgical interference in most cases is not justified. The operation is quite experimental; but there is full justification when performed in cases which would otherwise be hopeless, as it is simple and not dangerous. Surgical interference may have done good in several cases; but I maintain that its use is still in the empirical and experimental stage, and that we cannot yet put forward the true theory of its therapeutic action, nor can we yet diagnose the exact physical conditions that justify its use.

Hints towards the Prevention of Mental Disorders. By Dr. CURWEN, Honorary Member of the Medico-Psychological Association; Medical Superintendent, Pennsylvania State Hospital for the Insane, Warren.

Every physician in charge of a hospital for the insane should do all in his power to aid in the advance of mental physiology, mental pathology, and physiological psychology, not only for his own immediate benefit as a study; but with the intent of reaching a better knowledge of the mental processes, and elucidating, as far as possible, the recondite problems of mind. These require careful and exact study, but that study will give power to the individual, while it will enable him more definitely to trace the intricate connection of cause and effect in the cases which call for his examination. It is certain that the more thoroughly these processes are studied the better will be the effect of treatment, and the more satisfactory will be the result to the patient and to the physician. He will learn more fully that while medical means are excellent as adjuvants, entertainment and diversion of the mind, and also occupation of both mind and body, with proper hygienic precautions, are essential elements in the course to be pursued, to secure the best results. The reciprocal influence of mind and body needs more thorough

study than it has yet received; and by the knowledge thus obtained a way will be found for the more scientific application of medical, moral, and hygienic measures than they have heretofore received.

From the study of mental physiology and mental pathology can also be learned the principles and rules which can be applied to the prevention of mental disorders, and surely no higher object can claim the attention of the alienist than the endeavour to give tone and vigour to the mental powers, and thus prevent a disordered condition.

With the highest type of Christian civilization should be blended the strong features of the old Greek ideas of mental culture and the Roman model of physical development. How can this best be attained? Men too often allow their calm judgment of right thinking and right action to be overborne by their appetites, their desires, and their passions, but that is only an additional reason why they should be taught that such yielding is inflicting an injury and a wrong on them and theirs.

Education, in such cases, is a very slow process in the endeavour to eradicate the errors of the past and of the present time, and because of the slowness a more determined effort should be made to instil those principles which will impress on all classes the elementary truths of genuine hygiene, to be strengthened and made more impressive by constant repetition.

It is an undeniable fact, supported by incontrovertible data, that a large class of idiots is produced by drunken and other depraved conditions of one or both parents. It is equally undeniable that certain forms of disease are propagated by the diseased condition of the parent, caused by a vicious and dissolute course of life, and that this state would go down the generations but for the self-limitation imposed on certain kinds of disease, leading to their extinction. There is no limit allotted to those who obey the commandments, but to those who disobey the limit is fixed and definite.

The law makes no allowance by reason of ignorance of its provisions for those who neglect or disobey, neither are the laws of hygiene relaxed or the penalty warded off because men neglect or refuse to obey them. Those laws of hygiene are as fixed and inviolable as those of the Decalogue, and the punishment enforced more prompt and positive.

This Association can do no greater service to its fellow-

men than by the steady, persistent effort to teach them that obedience to hygienic laws means health of body, and vigour and soundness of mind, while the violation of these laws means mental derangement and physical degeneration.

Diligent inquiry and careful observation will demonstrate another class of subjects to which very little attention has heretofore been given. Women of education and intelligence have stated that they could observe in their children certain traits and dispositions which they knew they possessed and indulged during the period of gestation with those children. The more thoroughly this matter is inquired into the more positive will be the information obtained; and does it not point clearly and unequivocally to this fact, that the mother should be urged to exercise a careful control over her temper, and other mental and bodily conditions, if she wishes to have her children free from those neurotic conditions which tend so strongly towards mental disorders?

Everyone must have observed in certain families a very great dissimilarity in the temper, disposition, and mental capacity of the children, and sometimes also in the physical development of those children. Does not the statement given afford at least a partial solution of the difference observed?

Aptitude for certain trades and professions, special inclination to and ability in literature, science, and the higher branches of philosophy, are as clearly endowments of the individual as others are hereditary transmissions.

Another matter demanding special attention is the early education of children—first in the proper control to be exercised over the appetites, the desires, the passions, the emotions, and the affections, which should commence with the dawn of intelligence and be carefully, patiently, and judiciously exercised. This earliest exercise should be the training of the child in the habit of obedience to parental discipline; not the stern discipline which will provoke, but that calm, quiet enforcement of the direction given which will teach more effectually and have a more enduring influence than any stern and harsh command, enforced by severe punishment. This calm discipline, steadily adhered to and not relaxed on account of sentimental feeling, will teach the child a command over its own passions which will be of infinite benefit in the future.

The authority thus established will enable the parent, as the child advances in years, to enforce the needed advice in

all matters pertaining to the regulation of the moral powers, which will give stability to the character to resist more readily and more effectively the temptations to which all are more or less exposed, and will lead to a more law-abiding disposition.

Obedience to law, thus developed, means social order and good government; disobedience means disregard of law, anarchy, and confusion.

But education has a higher meaning still than this training of the moral powers, in the leading and training of the mental powers so as to fit the individual to take his place in the affairs of life. This does not mean the mere superficial glance at a given subject, but a thorough examination of each particular matter so as exactly to understand what it means and what it leads to, and the thoughtful study of the whole in all its parts and relations, fully comprehending one point before passing to another, and thus being firmly impressed on the mind so as to be of genuine value when needed. It is this thorough mastery of a subject which makes the scholar in distinction to the sciolist, "whose pride is as great as his ignorance."

But beyond this, and intimately associated with it, is the thorough and constant inculcation of sound moral and religious principles which will give each man to understand his duty to God, to his fellow-men, and to himself in his relations in every department of life in which he may be called to act.

"The faculty of knowledge is closely connected with the faculty of moral obedience, which is the right and duty of mankind."

The census report of 1840 gives the population of the United States as 17,069,453; the settled area of the country, 807,242 square miles; and the number of hospitals for the insane, 21. The report of the census of 1890 gives the population as 62,622,250; the settled area, 2,970,000 square miles; and the number of hospitals for the insane, 125. In the Dominion of Canada, in 1840, the population was about 1,000,000, and one hospital for the insane; in 1890 the population was 5,000,000, and the number of hospitals 10.

This steady increase of hospitals for the insane is clearly to be attributed to the strenuous and persistent efforts of the members of the American Association to enlighten the minds of the several communities respecting the large number of the insane and the urgent necessity of proper provision for

them, and the continuous endeavours to procure the erection of hospitals suitably adapted to the purpose.

Within a few years a class, outside of the hospitals, whose knowledge is limited to a very meagre acquaintance with the character of the insane and the special requirements for their care and management, has arisen, the members of which have assumed the right to dictate just how hospitals for the insane should be constructed and arranged. Acting on the idea advanced by one of their number, that because of the long experience and observation of the physicians connected with the care of the insane they cannot properly and without prejudice give advice and direction in the preparation of the plans and in the construction of the hospitals, they have altered plans and modified arrangements which were prepared with special care and study. The best answer to all such interference will be found in the language of a revered and honoured member of the Association, the late Dr. Isaac Ray, whose words were always carefully considered before they were written down.

“Without arrogating to ourselves any extraordinary wisdom, we believe that the accomplished work of this Association, as well as the character and reputation of its present members, fairly entitles it to a respectful hearing on any matters of legislation affecting the interests of the insane in the establishments devoted to their custody and treatment.”

In every hospital, particularly in those institutions constructed by the State Governments, the larger number of the inmates belong to that class who were active, industrious, and aided by their labours and the payment of the taxes to assist in maintaining the expenses of the Government. Many of them have laid by a small amount for their support, and that of their families, in case of sickness. When mental disorder overtakes any member of their family they are willing to pay a reasonable amount for their care and treatment in a hospital.

A gentleman, in a public position, once used this expression: “Compel them to go on the county.” That seemed a harsh statement to be made by a man of large wealth; and the answer was, “No, never.” So long as they are willing to pay their full share to support their friends and thus maintain their liberty, their self-respect, and their independence, every effort should be made to encourage the feeling that they are citizens of an enlightened commonwealth.

There is an old proverb, written more than three thousand years ago, which has come down the centuries with steady verification, "Whoso stoppeth his ears at the cry of the poor, he also shall cry himself, but shall not be heard." Let every member of this Association use his influence, whenever and wherever the opportunity may offer, to induce men to avoid the application of this proverb to themselves, and do all in their power "to raise the fallen, cheer the faint, and heal the broken-hearted."

The trials, the temptations, and the labours of men in every sphere of life are sufficient to depress and cause to despond many who are striving honestly and heartily to discharge the duties incumbent on them in the sphere in which they are called to act, and it behoves every man to cheer and to assist them in every reasonable effort they may make.

In this connection and in face of the steady attempt to crowd together, and at the same time diminish the personal care of the insane, it is the duty of every member of this Association to use his utmost endeavour to introduce into every class and condition of those labouring under mental disorder a more systematic course of individualized treatment, giving to each individual the attention needed by the constant companionship of a cheerful attendant, who shall be required to use all proper means to divert, interest, amuse, and occupy such person, so as more effectually to draw the individual out of the mazes of mental disorder in which he may be involved, and instil more hopeful, cheerful, and practical views of duty and of life. It is worse than useless to advance the idea that the mind is too far disordered to be benefited. Hope never dies, and no one can ever know how soon a bright, healthy idea, implanted by steady perseverance and nourished by faith and love, may develop into such a mental condition as will cheer everyone within the circle of acquaintance. This is no fanciful theory, but a plain fact which anyone may verify by experiment. No one is so circumstanced that in some period of his life he may not be overtaken with trials and misfortunes which tend to try his faith and endurance, and it is, therefore, all the more incumbent to practise, in its fullest meaning, that rule which teaches, "Whatsoever ye would that men should do to you, do ye even so to them."

The PRESIDENT said—I feel deeply that our thanks are due to Dr. Ourwen, the outgoing President of the sister Association in America, for the very eloquent words to which we have listened with such pleasure. They form the

concluding portion of his address, delivered a few weeks ago, at the Jubilee meeting of the American Association, and they show that in America the same difficulties arise as occur to us here. They also show us that in America, as I hope in these islands, there are enlightened and humane physicians who devote their best attention to endeavouring to alleviate the suffering of the most afflicted of our fellow creatures. No one could have heard Dr. Curwen's words without being touched by their manifest earnestness, and I am sure that every member of this Association is glad Dr. Curwen has come and favoured us with this paper, and brought us such pleasant messages from the other side of the Atlantic. I hope that we shall at these meetings often welcome our colleagues from America.

On Moral Insanity and its Relation to Criminology. By
PROFESSOR BENEDIKT, Vienna.

It is an undoubted fact that the diagnostic terms *moral insanity* and *obsessions* have been the cause of serious misconceptions in science and in criminal practice; and, further, that such misconceptions may paralyze justice and menace the moral standard and even the safety of society. It nevertheless marks a great advance in the progress of psychology to have recognized that many criminal and vicious acts result from congenital defects. These defects are sometimes accompanied by atypical anatomical forms of the body, and especially of the skull; but the value of these abnormalities is relative, not absolute.

The term *moral insanity* has been applied to these cases of congenital psychological defect. But it is equivocal, inasmuch as it excludes other psycho-pathological states, it confounds congenital defect with those other anomalies of moral conduct which result from real psycho-pathological processes.

It will therefore be advantageous to substitute for the expression *moral insanity*, the expression *moral depravity*; and to distinguish between the active form (*moral perversity*) and the passive form (*moral deficiency*). We must distinctly differentiate between those cases of immoral or criminal conduct which result from anomalous moral organization, and those which are symptomatic of a disorder in which intellectual, sensory and motor perversion combine.

The second group is to be diagnosed and treated by psycho-pathologists; the first group is to be studied by the medical profession from a psychological standpoint, but must also be brought under the review of judges occupying the social standpoint, and if necessary remitted to prison.

Insane criminals and criminals who have become insane must be treated by physicians acting in conjunction with the administrative legal authorities. And, further, provision should be made for a class of persons who are found dangerous to society. Institutions are necessary for those individuals of anomalous organization who have proved themselves dangerous by irresistible breaches of the law, after having expiated former misdeeds.

We must bear in mind that every criminal deed is of social as well as scientific interest—that it becomes a question of the safety of society, and that this is not an affair of medicine. Further, it is evident that persons tainted with congenital or acquired depravity cannot be treated in the same manner as the insane.

The confusion of insanity with depravity becomes a real danger to society, especially when a similar confusion exists between “irresponsibility” in the metaphysical and in the criminological sense. Medical and juridical science will not be freed from this danger until the Kantian doctrine of “autonomies” has infiltrated the conscience of every educated man.

Evidence regarding a man’s conduct may be debated as a metaphysical question of irresponsibility; but in general such a debate is outside the procedure of criminal law. Irresponsibility as a reason for exculpation is founded on proof of an insane state—i.e., of mania, delirium, paranoia, idiocy, or melancholic hallucinations.*

It is also necessary to observe that a state of sub-typical intelligence and congenital feeble-mindedness is not sufficient to prove a person of moral perversity to be insane. Every psychologist knows that the feeble-minded may belong to the class of *homo nobilis*, and on the contrary the most ingenious may be notably deficient in moral sense. We do not condemn a voracious wolf from the moral standpoint, because he is created a rapacious animal. Nevertheless we do not exculpate him, nor do we hand him over to psychologists for the protection of society.

I therefore submit these propositions:—

1. Congenital or acquired moral depravity is no reason for exculpation in the case of the criminal or the vicious.
2. Exculpation can only be extended to cases in which

* It will be necessary to enumerate these different exculpating forms of insanity in the text of the laws in order to prevent errors in practice.

criminal or vicious actions have resulted from real insanity—acute, chronic, or periodic.

3. The combination of depravity with congenital feeble-mindedness does not exculpate.

We have still to discuss the question of "obsession," but it may be stated briefly that only those states of so-called irresistibility can be deemed insane, in which the seizures are mere explosions, and not exaltations of normal conditions. For instance, a very irascible person may become furious, but as a general rule the commission of a criminal act at such a time cannot be exculpated. But when a person becomes furious, without sufficient subjective or objective reason, we recognize the pathological nature of the explosion, even if the real reason cannot be assigned.

4. It follows, therefore, that obsessions are necessarily unexpected and unexpectable and so exculpate. When fits of abnormal conduct appear as exaltations of the usual psychological state they do not exculpate.

The question clears up when we ask what is to be done with a so-called "Urning," even with a so-called congenital "Urning." Can he be exculpated when he fails to resist his passion? Certainly not. Is he a proper person for asylum care? By no means. The only satisfactory conclusion is that if he prove incorrigible he should be imprisoned till the time of sexual decadence, and even this may not be sufficiently long. The only possibility of mitigation would be that his painful education might permit the risk of his being confined in an institution for the "degenerate." But a danger would lurk in this, for we know that moral infection proceeds in geometrical progression.

THE PRESIDENT—The subject of moral insanity is one of profound interest, from a scientific point of view, from a medico-legal point of view, and from a social point of view. It is now generally regarded as incontestable that there is foundation for the arguments of Prichard, although, as has been pointed out by Dr. Hack Tuke, and as is clear to every reader of Prichard's work, the cases that he himself cites do not fully prove his contention. Undoubtedly forms of mental disturbance and mental aberration occur in which we can hardly believe that responsibility remains, and in which it seems that the intellectual functions are comparatively little engaged. Nevertheless, I would certainly say for my part, and I think that this is the essence of the contention of Professor Benedikt, that immorality alone can never be held to be proof of insanity. On theoretical grounds I am inclined to doubt the possibility of a profoundly diseased condition of the moral functions, unaccompanied by any intellectual deficiency. The solidarity of all the mental processes seems to forbid it. Practically, I must say that my experience confirms this view. I have been amazed at the degree of imbecility which one has found in so-called cases of moral insanity, imbecility which is often overlooked because it is not at the moment

of examination accompanied by delusion. I have been looking for a case of pure moral insanity for a great many years and have never yet seen one. The lesson to be learned from Prichard and his followers amounts to this—that there are a great number of cases in which there is a want of relativity between the degree of engagement of the moral and intellectual faculties. And there are many cases in which vice is so prominent a symptom that we overlook the existence of a considerable amount of intellectual impairment. Persons come constantly under my notice who have spent years off and on in workhouses and in prisons, and are eventually sent to my asylum. Such a case will on admission very often present no delusion whatever, and to ordinary tests extending over a short period of time very little appreciable intellectual impairment. But on observing these cases for some time, one will generally find profound intellectual weakness. Watch their actions and their apparent motives, and you find that they are not alone immoral, but intensely stupid. Much of their tendency to outrage morality arises from their intellectual incapacity to comprehend that others, unlike themselves, have any grounds of conduct save appetite. To intellectual defect must be also attributed the facility of mind that such persons exhibit—generally, of course, in a wrong direction—and their extreme susceptibility to external disturbing influences. Many such cases live on the very borderland of delusion. Their temperament is intensely suspicious and their intellect exhibits a sort of irritable weakness, which renders it fearful of all its dulness cannot grasp. In fact, delusions of suspicion develop from the most trifling causes. As an example, I may be allowed to mention a typical case. A patient has been in my asylum some years ago now, who had been more than 100 times in gaol and several times in the workhouse, though she was not more than 30 years of age on admission. She became very unmanageable, apparently through mere viciousness of temper, and I unfortunately proceeded to adopt continuous seclusion in her case. When she was first secluded, no more could be said than that she was of a markedly and perhaps morbidly suspicious turn of mind. Under the injurious influence of seclusion, in an incredibly short space of time she developed hallucinations of hearing and an organized system of persecutory delusion, to which she has ever since remained the victim. The intellectual defect in such a case is either originally sub-latent or readily developed, and it is to the intellectual defect that we ought always to look, and not to the mere moral depravity. I think it would be a very sad day for our science and for humanity if ever it should happen that every person who exhibits vicious tendencies in an incorrigible degree is regarded as insane. If we lend ourselves to giving such evidence as that, we will do a great deal of harm and assume a very unscientific attitude. I should just like to say one word with regard to a sentence or two that have fallen from Professor Benedikt in reference to the question of sexual perversion. He has stated that he does not believe there is such a thing as a born “urning.” There is an ambiguity in the use of the word congenital as applied to the sexual functions. These functions, not being in existence from birth, it may be said that any aberration can hardly be called congenital. In using the word congenital or an equivalent phrase in this connection, one means that the person has a congenital tendency to develop certain abnormal conditions at the period of sexual evolution. This being the point at issue, I must say that I entirely agree with Professor Benedikt. A very large book has recently appeared in English containing a large number of cases of so-called sexual perversion. It has been my painful duty to read through this book, and I have not been able to satisfy myself that one single case quoted could be considered congenital. In at least 99 out of 100 there is a history of sexual aberration of a certain form familiar to us all occurring at the period of puberty, and if that takes place, and the generative instincts are thereby distorted from their normal growth and development, I fail to see how such cases could be considered congenital. From a scientific point of view, I think the case of the “urnings” has not been proved. There is another question which I don’t think

we ought to lose sight of. We are neither teachers of morality, nor custodians of morals, but I think we ought to be careful not to allow our professional opinions to be placed in such a light that there is any danger that they may be prostituted for the purposes of vice.

Dr. URQUHART—I have listened with great pleasure to Prof. Benedikt while he so clearly indicated his standpoint. There has been persistent misrepresentation and misunderstanding of the school he leads so brilliantly, but we can have little difficulty in giving general support to the thesis now presented. We know that there is on the one hand no intention to exculpate all and sundry, and that there is on the other hand a determination to secure a better, a more scientific provision for the criminal classes. Professor Benedikt's address at Antwerp, in 1888, has already borne fruit, for we have with us to-day Dr. Jules Morel, the first inspector of insane criminals, whose special duty it is to examine those detained in Belgian prisons, and to advise the Government as to their treatment. It will remain a difficulty to decide such questions as arise in connection with "obsessions." Such a habit as that of Dr. Johnson's, who could not walk down Fleet Street without touching each post in passing, might have been broken off in the inception. It was rather acquired than congenital. They had to deal with persons whose habits, acquired or congenital, required regulation. Whether it was vice or disease, urgings or inebriates, what was demanded by civilization was the establishment of institutions for their reformation or treatment. And no establishment would be satisfactory unless founded and managed on scientific principles—none complete or satisfactory without active manual labour. For such individuals I know no better prescription than a good hard day's work in the open air.

Dr. HACK TUKE—I for one emphatically agree in rejecting the theory that vice is in itself an insanity and should go unpunished. I think, therefore, that the clear statement of Professor Benedikt upon that point is a great benefit. To preach that those who commit great crimes are irresponsible would, indeed, be a terrible mistake, although we might be following Plato, who said that all crime is madness. Being, as we are, agreed upon that point, I think all other points of difference mainly arise from differences in definition. I really believe that in this question of moral insanity we are practically one, though in terms we may seem far apart. Of course the subject may be approached from the metaphysical as well as the clinical side. From the metaphysical side I should not at all insist upon the theory, and yet we have so great a man as Herbert Spencer who, in his works, insists on the solidarity of moral and intellectual attributes, giving his adhesion to it. When I pointed this out to him he said, "I fully believe in moral insanity." Again, Professor Benedikt admits that a man may have a weak intellect and yet a very fine moral nature. Well, if so, why not admit the reverse? Why not a fair intellect and a very low moral nature, from brain defect or disease? And ought not that to make a man more or less irresponsible? Putting aside the metaphysical question, all I insist upon is this, that there is a class of cases which I think every alienist must have met with in which the intellectual faculties are at any rate very fair, some even remarkably good, and yet the man may be morally insane. There is no such marked intellectual abnormality as to make the law recognize that he ought not to be punished as an ordinary criminal. And yet I say that in such a case there may be a condition of moral perversion which is connected with cerebral disorder. If the lawyers will extend the definition of intellectual observation so as to cover such cases, well and good. But they won't. Therefore we must continue to insist upon there being a class of morally insane persons who ought not to be punished, although society ought to be protected from their acts. This is the position which we ought to bring forward prominently while maintaining that mere vice is no excuse for an escape from punishment. I think with regard to the term "moral insanity" it has taken such a hold on the public that it is impossible to substitute any term for it. Some years ago I suggested the term "inhibitory insanity," but I did not

expect anyone would adopt it. The only thing is to define it in the clinical sense I have stated. The clinical fact was not recognized until comparatively recent times. Prichard set the doctrine in motion, although most of his cases fall short of the mark. As to the term "depravity," used by Professor Benedikt, the question after all is whether the brain is so diseased that the person is not responsible for crime? Then again as regards the word "obsession," it is a term which seems to me very objectionable, because it conveys the idea that these abnormal conditions are due to the devil, and I think it is the duty of our profession to oppose such a superstitious notion.

Dr. MERCIER—I appear before the Association in regard to this subject in the unenviable garment which is known as a white sheet. In earlier days I strongly controverted the idea that there could be any such condition as moral insanity. If we mean by that a defect of conduct and motive without any conspicuous intellectual defect, that position I desire publicly to recant. On further experience I am convinced against my own preconceived opinion that there can be no doubt whatever that such cases do arise. I think we are apt to regard the matter too much from the metaphysical standpoint, and consider too much what possibly may be going on in the mind of our patients without sufficient consideration of their conduct. I have always maintained, and still maintain very strongly, that the cardinal factor in insanity is not disorder of the mind, but disorder of conduct, and disorder of conduct is in itself insanity apart from any of the disorder that may exist in the mind. I merely desire, therefore, to say that I have been entirely converted, that I am like Saul among the prophets, and that I believe now, call it what we may, that this condition of disorderly conduct without any conspicuous intellectual defect is a state of things which exists in some people, and constitutes a very grave and extremely difficult state of things to deal with.

Dr. BURKE—I have some practical experience of a class of criminals who are, as it were, the moral lepers of the land—outcasts from the prisons and the lunatic asylums. Looking at the question in the light of responsibility to human lives the effect produced upon those criminals who think that they are irresponsible is very bad. I cannot too strongly impress upon you my own convictions of the evil effect it has upon even lunatic criminals. A man through jealousy (I believe well founded) shot another. He was found to be insane, and sent to the criminal asylum. He killed another man. He frequently showed his animosity towards the governor by attempting violent assaults. The end of it all was that with another patient he committed an assault upon the governor, which was indirectly the cause of his death. I have argued with this man frequently about it, and he said, "What harm can it do me? I killed a man before and am already in this asylum." Now, if that man had known that some punishment would follow he probably would not have been so ready in his attacks.* I greatly fear that the tendency of the present day, which begins by interfering with the proper training of children by taking authority from schoolmasters, is towards a training in crime. Irresponsibility commences in the very earliest years with many of our population. The pendulum of public opinion is sometimes liable to beat too fast, and sometimes too slow. It is sometimes too long and far reaching, and takes in a space that it should not cover. The extreme humanitarians who are inclined to treat all crimes as insanity need regulation. The pendulum ought to be regulated by the deliberations of experts such as I see around me, and after mature consideration they ought to impress their views upon public opinion.

Dr. T. W. MACDOWALL—I would just like to endorse what Dr. Tuke said about what we call moral insanity. No one denies that under the plea of moral insanity some great rascals have escaped the just reward of their offences. But I cannot conceal from myself the fact that I have in the course of my experience come across one or two people not intellectually insane who

* Dr. Burke does not explain why the fear of punishment did not deter the man from committing the first murder.—[Ed.]

laboured under uncontrollable impulses. When a man sins against his inclination and deeply regrets the offence he commits, surely it may be questioned whether that man does not labour under a form of moral insanity. I remember a few years ago, when Dr. Tuke and I were discussing this very subject, he mentioned a very striking case of a young schoolmaster who consulted him on account of an almost uncontrollable impulse towards an offence which he felt he would commit, and would in such a case be sent to prison for it without a doubt. This was a God-fearing, pure-living man, anxious to do well and avoid offence. Yet under certain circumstances he recognized the serious condition of his mental health and the possible consequences, and consulted Dr. Tuke, who advised him to give up teaching.

Dr. HACK TUKE—For a year or so afterwards he struggled against this temptation and did not yield, and under my advice left the school and went and lived in Australia, where he continues to reside.

Dr. MACDOWALL—I hope that Professor Benedikt will not consider me discourteous if I suggest that the propositions which he has laid before us should be laid aside in order that we may consider them before we homologate them.

The PRESIDENT—I don't find that Professor Benedikt puts forward a proposition which he calls upon the Association to adopt.

Dr. HACK TUKE—I quite understood that he does not wish for any final expression of opinion on the part of our Association.

The Need of Special Accommodation for the Degenerate. By
Dr. JULES MOREL, Medical Superintendent of the Hospice
Guislain, Ghent.

The subject which I have the honour to bring before this learned Association concerns persons whose mental condition is unsatisfactory, either by arrest of brain development before birth or in early childhood, or as a result of altered intelligence following injury or acute disease in infancy, in adolescence, or even in adult life.

It is not my intention to explain how numerous, if not infinite, are the varieties of psycho-pathological cases met with by the alienist every day; for Dr. Koch, of Zwiefalben, has given ample proof of their multiplicity in his excellent book, "*Die Psychopathische Minderwertigkeiten*," which was published last year.

The intellectual inferiority of the criminal class is not confined to any country. It is a matter of common observation. More especially has this been noticed since the increase of inebriety and similar habits; and it has been ascertained that there is an increasing number of persons vitiated by an aberration of the moral sense, owing to the same causes.

Anatomy and physiology, normal and pathological, demonstrate the existence of individuals of psychical inferiority who are bound, in different degrees, to act abnormally. The brain, and sometimes the whole nervous system, is in a state that

cannot be regarded as other than pathological. In some this condition is permanent, while in others it is susceptible of a certain improvement.

A psychological study of youthful offenders confined in reformatories provides the best evidence of the truth of this statement. A large number of these children are abandoned or neglected, and frequently labour under symptoms of mental depreciation. We meet, in prisons and reformatories, persons absolutely unable to receive the slightest education, and there is no difficulty in perceiving that they are in an abnormal psychological condition. But, on the other hand, there are others whose intellectual capabilities are higher, and who seem to approach nearer to the psychical average. An analysis of their individuality discovers in them, side by side with certain normally, sometimes even superiorly-developed qualities, other insufficient faculties, either as a result of an incomplete education, or owing to a failure to cultivate those moral qualities which would give an appreciation of right and wrong. These individuals belong to the class of imbeciles or weak-minded. In them the formation of high ideas is deficient, their judgment is vague and narrow, and they are highly susceptible to the influence of other people.

While an ordinary man scrutinizes his personality and takes an intelligent interest in his environment, a person of weak mind does not occupy himself with the why and wherefore. He is indifferent to all that is abstract. He never thinks about serious intellectual work; the material wants of life are sufficient to satisfy him. He has a very good opinion of himself and his doings, but he does not possess a really independent mind. He is very facile; and advice, threats, or emotions are capable of modifying his feelings, and of impelling him to crime. In such a person, when under the influence of intoxicants, the state of equilibrium of the acquired notions of ethics is disordered. Modifying agents and physiological disorders act still more profoundly. This instability of the *ego* is, in certain of these individuals, more promptly variable than in normal man.

These individuals, thus rapidly sketched, are psychopaths. They include many incorrigibles who are apparently intelligent from the standpoint of the public, the police, and the magistracy, and form the very numerous contingent of habitual offenders.

Medico-psychological science, which is at present very

seriously occupied with this section of criminals, has succeeded in demonstrating that they are neither insane nor absolutely irresponsible. Their place is not in a lunatic asylum, nor in a reformatory, nor in a prison.* They should be received into institutions set apart for their special care and treatment. The present accommodation in asylums is not sufficient to receive such cases; and it is undesirable that they should be housed with the insane, on whom they would almost certainly exercise an unfavourable influence. Besides this, they would be a source of constant annoyance to the staff, because of their not being amenable to the same correction and discipline as the usual kind of insane patients. Neither are reformatories nor prisons proper places for such individuals, because, on account of their mental weakness, they cannot be classed with real delinquents or criminals. Besides, were they treated as ordinary offenders, they would, on the expiration of their penalty, be restored to liberty, and society would again be placed at the mercy of incompletely responsible persons. Society fails in its duties if it follows such a course; for it owes assistance and protection to these unhappy and incurable unfortunates, and it requires assistance and protection for itself.

The erection of special institutions would be a defence to society and a boon to the mentally depreciated, especially to those who are but slightly afflicted, and who would be saved from deeper depreciation. Such persons should be objects of prophylactic treatment against crime, and the benefit accruing therefrom would be inevitable. Such institutions would also give shelter to inebriates and persons labouring under allied neuroses; to all psychopaths, mentally enfeebled or degenerate, who have acted contrary to ethics and social laws.

Society willingly gives assistance and protection to those suffering from insanity. Why should not this charity be extended to those whose moral sense is perverted, who are no doubt more dangerous than the insane? This question is of special importance in relation to youthful offenders.

The creation of such institutions should contribute *pari*

* Dr. Koch, Superintendent of the State Lunatic Asylum of Zwiefalten (Wurtemberg), was the first to recommend separate buildings for youthful offenders in a paper published in the "Irrenfreund," in 1848; "Ueber die Grenzgebiete der Zurechnungsfähigkeit." In 1890 Dr. J. Forel, Professor of Mental Diseases in the University of Zurich, discusses the same question in the "Correspondenzblatt für Schweizer Aerzte" under the title "Uebergangsformen zwischen geistiger Störung und geistiger Gesundheit."

passu to the diminution of insanity and crime and the transmission of vicious heredity, and consequently to the improvement of mankind.

These institutions to be effective should have as large an area of inclusion as possible, and the inmates should be classified according to their intelligence and degree of moral sense. They should receive a course of systematic instruction, and periodically undergo a complete medico-psychological examination. These examinations would settle in a satisfactory and scientific manner the desirability of granting partial or complete liberty. After such a scheme had been in working order for some time, one might expect that consummation devoutly to be wished—a diminution of the population of prisons.

The International Congress, held at Antwerp in 1892, for the study of questions concerning the after-care of discharged prisoners and the protection of neglected children, recognized the principle of medico-psychological investigation, and unanimously passed the following resolution:—"That the boarding-out of neglected children should, as a general rule, be preceded by an inquiry into the condition and morality of the parents, the conduct and character of the child; and, when possible, by a period of special observation of the child itself." It will not be out of place to quote another resolution passed at the same representative Congress, viz.:—"That it cannot be considered a satisfactory legal enactment which decides the responsibility of criminal children, according as their age is below sixteen years."

These resolutions involve the necessity of studying the mental condition of the children (and even of their parents) before entering upon their new education. The pedagogue and the psychologist make no distinction between the different boarding-out systems—private family, reformatory, or special school—but rational and systematic education, enlightened by medico-psychological examination, to be completely successful, must provide for the separation of good and bad elements.

The best should be permitted to leave the institutions as soon as they are fitted to adjust themselves to ordinary circumstances and to live simply and modestly. The worst—the most degenerate—should be kept as long as possible. They should be provided for by the State, and when they are able to do remunerative work the State should profit by them. In such a community there would always be a certain pro-

portion capable of earning sufficient to counterbalance the expenses of management and maintenance.

Much useful work of a purely mechanical kind, or requiring but little intellectual capacity, is done by the inmates of lunatic asylums and prisons. Having an enfeebled intellect, capable of retaining only a limited number of impressions, which are not easily diverted, such persons often perform their work better than the average man. We not infrequently find them entirely devoted to their occupation.

Only the weak-minded—those unable to receive any education—the idiots—would become a perpetual burden on the Treasury; and to keep this dangerous and pathological class out of harm's way society would willingly contribute. Moreover, the additional outlay would be met by the retrenchment resulting from a diminution of the prison population—a happy compensation for the State Budget. Besides, if those unfitted for education could not be kept in these institutions, why should they not be confined in lunatic asylums, which already receive many idiots?

We would again emphasize the fact that the increased expenditure would be more apparent than real. Even were this not the case, may it not be urged that society is responsible for its degenerated products?

To sum up, in establishing institutions for the degenerate, society would accomplish a threefold task—

1st. Self-preservation, and reduction of crime.

2nd. Protection for the degenerate.

3rd. Marked diminution of defects—inebriety, vagrancy, debauchery, etc.—which are the origin of so many crimes.

It would be a short-sighted policy on the part of the State were it deterred from entering on such an enterprise because of the huge initial cost. The only possible objection to the establishment of these institutions is that by-and-by the accumulation of incorrigibles and morally insane grouped together would form very dangerous elements, to combat which special rules would have to be made. As we have the precedent of prisons to guide us, this objection is rather superficial. Experience demonstrates the possibility of maintaining order and discipline in prisons, where so many of the moral insane are lodged.

Dr. HACK TUKE—I am sure that we all feel greatly indebted to Dr. Morel for taking up a subject than which there could be none more important. But the great difficulty I feel in considering this matter is this—that

there is a large mass of the population in regard to whom we feel that they are dangerous to the community, that they are more or less congenitally different from other people, and what is generally called degenerate, but who have not committed any crime at all. And then the question arises—Have they any outward physical symptoms from which we infer that they are likely to commit crime. Professor Benedikt and I got permission some time ago to visit the great State Prison at Louvain, with a view to examine the inmates—their physical signs—including the shape of their heads. Professor Benedikt examined them with great care, and I have no doubt that he did draw useful inferences. But for myself, I felt, after leaving the prison, that I was no nearer being able from the size and form of the head to distinguish between the moral man and the murderer. And, though no doubt Professor Benedikt has gone into the matter deeply, has he or anyone who has studied the subject been able to differentiate between the two classes, the so-called degenerate and normal members of the community? Until we can do so I think that we are unable to go to the Government and make a demand for the sequestration of persons who have not committed any crime, and to ask to have them placed in a special institution. I entirely agree with those who, like Dr. Morel, wish this class of the community to be placed under surveillance and a certain amount of restraint. But, speaking for England, I fear we cannot do it, and the time is not near when we shall be able to do it. When we can come to this I for one shall rejoice, for I know that there are a great number who ought to be placed under care. It is true there are reformatories in England, but a boy or girl must have committed some overt act before being placed in them. Signs of moral perversion would not suffice. And then, again, with regard to the familiar cases which go to Broadmoor, it is only when the deed is done that the law in certain cases humanely places them there. I repeat that, as regards this most important class, the cause eventually of so much crime, I feel the greatest difficulty in suggesting any practical solution of the question beyond what is already being done.

Professor BENEDIKT—Stigmata can not be regarded as an absolute proof of degeneration, and the less so as epileptics, congenital insane, persons with other brain diseases, and even normal individuals show the same signs. The psychological proof of the necessity of sequestration must be the result of actual deeds. The stigmata only give us the right to suspect degeneration. That which Dr. Morel proposes is not, as I understand, in opposition to the ideas of Dr. Hack Tuke. The persons brought under Dr. Morel's notice have given evidence of their dangerousness in reformatories, after having committed crimes and having been recognized as incorrigible by the Judges. But the sequestration must not be absolute. They should be confined as may seem proper to the Psychologists and Judges.

The GENERAL SECRETARY—There is one of the classes of degenerates to which Dr. Morel has alluded—the class of idiots. No doubt it is quite wrong, as he said, that they should be put into prison. But, of course, he is aware, and the members of the Association are aware, that there are institutions for improving and training idiots and imbeciles. I don't know whether there are institutions of that kind in Belgium, but the experience of such institutions, in America and on the Continent and in England, has shown the great improvement of which idiots are susceptible. Dr. Telford Smith will bear me out in the statement that idiots and imbeciles are considerably improved physically and mentally by the education they receive in these institutions; because there are workshops in which they can be trained in certain trades, such as shoemaking, tailoring, and so on. And in many cases we find that they are able to go out and earn their own living. I mention this to show the great advantage we have in England. There is another class—the feeble-minded—who are a higher class than the imbecile or idiot. No doctor will ever certify this class for confinement, and rightly so, because in certain cases they can be advantageously trained. Some years ago a committee of the Charity Organization Society was formed, on which I had the honour of serving, and we began

by examining the mental and physical condition of children in England. I think that, out of the first 50,000 children, there were upwards of 300 feeble-minded, for whom we recommended special education. Another committee was formed after the International Congress of Hygiene, and now 100,000 children are being examined. Dr. Warner is the man to whom we are indebted, and he tells us that he will be soon able to state the number of feeble-minded children in the community. We are strongly of opinion that the time has arrived when the Government should have a committee appointed to investigate this matter, not only in London, but in the provinces of England, in Scotland and Ireland. In order to make the question an international one the same investigation is going on on the Continent, so that we may be able to come to a joint opinion on the subject. The London School Board has ten schools in which these feeble-minded children have a quite distinct education. They are enormously improved by the education which they receive, and at the present time a good many are so far improved that they can be sent back to the ordinary schools where they were before. Previously no special education was provided, and many of the degenerate became imbecile. The example of the London School Board has been followed by the School Board in Leicester, and that in Birmingham, and I know that the question is being taken up in Manchester and Liverpool. I, and many others, entertained the idea that many criminals were weak-minded; but Dr. Gowers has stated that this is quite untrue. He said that the criminal institutions of London contain very few such.

Dr. CARSWELL—Degenerate persons of criminal and vicious instincts abound in large cities, and the management of such persons is a problem affecting populous towns much more than country districts. I happen to have had opportunities for seeing many of those "Borderland" cases in the most populous parish of Scotland. I refer to the Barony parish of Glasgow, which contains a population of about 320,000. I have occasion to medically examine a considerable number of ordinary applicants for parochial relief, in addition to my duties in connection with the reported cases of insanity. We find many examples of mental failure and moral degeneracy of the kind referred to during this discussion among ordinary paupers as well as among the insane. Degenerates are to be found in these three classes:—(1) the criminal, that is to say, those who have committed serious crimes; (2) police offenders, as we call them in Scotland, *i.e.*, persons who commit slight offences, habitual drunkards, and persons charged with assaults and offences due to drink; then (3) there is the third class of degenerates, those persons who are partly police offenders and partly paupers, who rely upon the parish as their chief support. Reference has been made by Dr. Hack Tuke and others to certain practical difficulties in the way of sequestrating persons alleged to be degenerates for the protection of society. Dr. Tuke has told us that, after a careful examination of a very large number of degenerates, he came to the conclusion that he could not tell from the physical conformation of such persons whether in any particular case the person would show criminal tendencies or not. Clearly, if we wait, until we are able to declare in relation to particular cases that the presence of certain physical indications is evidence of mental deficiency of the criminal or vicious type, before we propose measures for the restraint of such persons, we shall have to wait long enough. No doubt the physical features of mental and associated moral deficiency are indications of great importance, and they must not be ignored in determining the question at issue in every case of alleged moral degeneracy, *viz.* is this person instinctively criminal or vicious? Nor does an estimation of the degree of intelligence manifested by a degenerate help us any more certainly than the indications afforded by his physical conformation. I submit that apart from, but in conjunction with the psychological evidence afforded by the examination of the alleged degenerate, there exists abundant material to prove degeneracy, and I think there is good ground upon which to proceed at once to the consideration of practical proposals. In large cities and large parishes local authorities have material enough to act upon to call for

something being done with these degenerate and borderland cases. And in Scotland, at any rate, there is, at present, a movement in this direction. It is just announced that Sir Geo. Trevelyan has appointed a small Committee, to be presided over by Sir Chas. Cameron, to inquire into the question of habitual police offenders. Certainly there is a strong feeling in Glasgow as to the necessity for something being done. It cannot be on the ordinary line for certifying lunatics. A broader line must be drawn. And if those who are responsible for the care of such people—police authorities and parochial boards who have to maintain them—are able to lay definite evidence before the authorities in proof that they are degenerate and ought to be sequestered, would that meet with the approval of Dr. Hack Tuke and Professor Benedikt? I think that, in the biography of these persons, as recorded in the police and parochial records, we have material at hand to proceed at once. But in order that anything like this may be done we must have local control in respect to such questions. Dr. Hack Tuke remarked that in England public opinion had not reached the length of committing a man to an institution for special care until he had committed an overt act, and proof was given that he was not responsible. Well, the desire to deal with degenerates in an effectual way is found to be difficult of application just for this reason, that though opinion in a city like Glasgow may be advanced, we find that the legislature will not look at proposals made by local authorities to entrust them with special powers for dealing with the degenerate, but will only give them powers in conformity with the general law of the country. Now it seems to me that one town or district may be far in advance of others, and ought to have local powers to deal with such problems. This aspect of the question, I think, has not been referred to to-day, and I beg to make the suggestion now. Perhaps I should correct my position by saying that when I refer to paupers I don't refer to all paupers. I don't include those who become paupers as the result of failure in the struggle for life. But a very large proportion of our paupers are degenerates. They remain for a few weeks in the poorhouse and a few weeks in the streets, and it depends upon the amount of drink which they get whether their next place of residence is the prison or the poorhouse. These are the degenerates that ought to be sequestered. With regard to the education of feeble-minded children we find it is an urgent problem in Glasgow. Every child is now expected to "toe the line" of the educational standard, schoolmasters press for results according to the code, and if a child is not keeping up with the class he is thrown out and reported as imbecile, the parochial authorities being then asked to provide for him as an imbecile. I think that it is an excellent idea providing schools for feeble-minded children in London and Leicester and Birmingham.

Dr. TELFORD SMITH—With regard to the idiot and imbecile classes of the degenerate, the experience at the Royal Albert Asylum (where they are taken for a period of seven years' training, between the ages of 6 and 15) was that after their period of training the patients went home and were taken in hand by their parents, who tried to get them into situations according to the trade which they had learned. But it often happened that their fellow-workmen found them weak-minded, and not up to the average, and their employers would not retain them. The patients were taken home and did not improve; in fact, in idleness they degenerated slowly. They were then sent to the Workhouse, and from there they generally ended up in the lunatic asylum. Well, in such cases the seven years' training is wasted. Now, if these patients could be drafted from the training institutions into a custodial asylum, where their work could be made use of, they would be self-supporting individuals to some extent. What is greatly needed (and this is admitted by the Lunacy Commissioners in England) is a custodial home for idiot and weak-minded patients, where they would be kept for life after their residence in a training institution; and the money, which need not be excessive in amount, required for their support should be contributed by the State, or groups of counties could combine and establish

joint rate-supported asylums. This system would prove more economical than the present plan of keeping them in lunatic asylums--the very worst place for them. A great many of the most trainable cases in institutions belong to what I might call the class of moral imbeciles, and if they are allowed to go at large they are liable to degenerate into the criminal classes. However, on speaking to Mr. Justice Day, when he visited our asylum, on the question of weak-mindedness in connection with criminality, he said that his experience was that imbeciles do not form a large contingent of the criminal classes, but that criminals, as a rule, are rather above than below the average in mental capacity.

Dr. NOLAN—I quite agree with the observation of Dr. Telford Smith, that after a period in the reformatory the patient should not be allowed to be transferred to a lunatic asylum. In this country there is a very large number of institutions, industrial schools, male and female orphanages, penitentiaries, etc., which, if modified, would meet the wants of this class. I don't think that the erection of a building to house every class of degenerates would be desirable or necessary; but at present we have the material which might meet the wants that Dr. Morel has indicated.

Dr. HACK TUKE—Much has been said on the subject of weak-minded children and their going out into the community, improved and more or less able to earn their own living. Well, in regard to this, it may be thought very pessimistic on my part, but I confess that I look with the greatest apprehension on the influence on the community of these discharged and improved children. I fear that the result will be the propagation of still more weak-mindedness. I am on the Committee Dr. Beach has referred to, and in regard to scholars who have a great strain put upon them in order to reach the ordinary standards, I have great sympathy with them, and I have tried to get them into these auxiliary schools mentioned by Dr. Beach. At the same time, I must confess that the condition of things is alarming for the descendants of these scholars.

The Necessity for Legislation re Suicide. By S. A. K. STRAHAN, M.D., L.R.C.P., F.S.S., Barrister-at-Law, Senior Assistant Medical Officer, County Asylum, Northampton.

(Abstract.)*

Up to the end of the sixteenth century the body of the suicide was treated with barbarous cruelty. This was the outcome of the canon law rather than the civil law, and the Church still clings to a belief in the efficacy of old-time procedure. Only the other day (February, 1894) the Archbishop of Canterbury said that "the increase of suicide is largely due to the now almost universal verdict of temporary insanity given at coroners' inquests;" and he further referred to the burial of suicides in consecrated ground with Christian rites as "harmful in every way."

It is almost impossible for the lay mind to understand this position, which would seem to indicate a desire to return to

* [For full development of Dr. Strahan's argument see "Suicide and Insanity," London, 1893, by the same author.—ED.]

former practices. The sole disability under which a suicide now lies is that which he suffers at the hands of the Church, and it is to enable him to escape that that coroners' juries deliberately perjure themselves by finding verdicts of temporary insanity where there is not a tittle of evidence to support such verdicts.

Early in the seventeenth century the custom of burying the body of a suicide at the cross roads and driving a stake through it replaced the greater indignities of the past, and as late as 1823 a suicide called Griffiths was thus interred.

In 1823 the law was amended by the passing of 4 George IV., c. 52, wherein it was enacted that the body of the suicide should be buried privately in any churchyard or cemetery between the hours of nine and twelve at night without any religious rites. This remained the law up till 1882, when by the passing of further Acts of Parliament it was provided that the suicide might be buried at ordinary hours, either silently or with any such orderly or Christian service at the grave as the person in charge of the body might think fit. By these Acts the last remnant of active indignity towards the body of the suicide was swept away, but the Church still refuses the *felo-de-se* the "benefit of clergy."

Let us now briefly look at the criminal law as it relates to the suicidal act, and we shall then be in a position to consider the proposed reforms.

In England the Roman system of confiscation of property was adopted, as it was later in France and several other States. In the time of Henry III. all the property of the suicide, real and personal, escheated to the Crown or to the Lord of the Manor; but so far as real property was concerned the law soon fell into disuse, and confiscation of the personal estate was the sole civil penalty. This remained the law up till 1870, when all forfeitures for felony were abolished; but for years before the repeal of the law, forfeiture was seldom exacted in the case of those guilty of the felony of self-destruction.

In England, according to the criminal law, suicide is on the same footing as murder. If two persons agree to commit suicide together, and only one succeeds, the other is held guilty of murder. He who aids or abets the successful suicide is also guilty of murder. It has also been held that if a person loses his life in trying to save a would-be suicide the latter is guilty of murder.

This is the letter of the law as it at present stands, but it

is far from representing the spirit in which the law is administered. This law is openly set at defiance daily by judges, juries, and public opinion. Only the other day a well-known and highly-respected literary man, who was on the brink of death from incurable disease, put a termination to his sufferings by shooting himself. His wife, who was devoted to him, and who was present when he committed the act, was asked whether she could have prevented it. Her answer was that she could, but that she would have considered herself a contemptible coward had she done so. She further stated that at his request she removed his false teeth preparatory to his shooting himself through the palate.

As the law stands this lady should have been indicted for murder, but it is hardly necessary to say that no such step was attempted.

To say, as the law does, that suicide and murder are equally grave offences against society is absurd, and that they are even nominally held to be so depends upon the fact that the law is never called upon to apportion punishment to the suicide. If murder and suicide are equal, then attempted murder and attempted suicide are also equal, but such is by no means the case. Attempted murder is a felony, triable only before a judge of the High Court, and punishable with penal servitude for life; whereas attempted suicide is only a misdemeanour, is triable at Quarter Sessions, and the maximum penalty is two years' penal servitude.

Attempts at murder are always treated, as they should be, as most grave offences; but attempts at suicide are daily treated as if they were of no importance whatever. Even when the trouble is taken to convict, which is very rarely, the sentences pronounced upon would-be suicides are, in nearly every case, as light as the Court can inflict without absolutely abandoning the position taken up. It is true that an attempt is still made, by the infliction of light penalties in rare cases, to support the idea that attempted suicide is an offence against society; but the attempt is of the most feeble and half-hearted character, and does more to discredit the honesty of the law than any other course which could be pursued. The fact is, judges and magistrates feel that the law is not only useless but unjust; and, knowing that their action will be heartily supported by public opinion, they are permitting it to fall rapidly into disuse preparatory to its repeal.

To the reformer there are but two logical courses open.

One is to sweep away all legislation upon the subject, so far as it relates to the individual himself. In other words, to consider suicide no longer a crime, and to ignore attempts thereat. The other is, to enact that all attempts at suicide, whether successful or not, be in themselves conclusive evidence of dangerous insanity, and sufficient grounds for detention in a lunatic asylum.

The first would be the more just and sensible course, and will doubtless be adopted ultimately. It would be infinitely better in every way to make attempted suicide legal than to call it a crime and let it go unpunished in ninety-nine out of every hundred cases. It may be thought by some that this course would tend to largely increase self-destruction, but there are no grounds whatever for such belief. The would-be suicide attacks his life with the intention and hope of carrying the attempt to a successful issue; and the knowledge that he will be punished if unsuccessful can only have the effect of spurring him on to more desperate and determined efforts to succeed. Sir James Fitzjames Stephen has expressed himself upon this point; but, strange to say, he has arrived at a decision illogical and altogether bad. He says: "It would be better to cease to regard it [suicide] as a crime, and to provide that anyone who attempted to kill himself . . . should be liable to secondary punishment."

With the first principle here expressed I heartily agree; for I do not believe that calling suicide a crime has ever stayed the hand raised against its owner's life, and the law can never hope to punish a single offender. I cannot, however, agree with the second part of the learned judge's opinion. If suicide be no longer a crime, how can an attempt to commit it be held to be one?

To partially perform a legal act, with the full intention of completing it, cannot possibly be a crime. So long as attempted suicide is called a crime, the completed act must also be a crime. To frame the law as Sir James suggests would merely put a still higher premium than at present upon the successful completion of the suicidal act. The unsuccessful attempt would entail both punishment and disgrace, whereas success would mean complete escape from both. Even the dishonour which is now supposed to attach to the memory of the suicide as a law-breaker would disappear.

But however righteous the foregoing may be, I would advocate the second reform suggested, on the ground that it

would be more beneficial to society. If all attempts at suicide, successful and otherwise, were in themselves good and sufficient evidence of dangerous insanity, many benefits would arise. In the first place, the strain upon the consciences of the clergy, to which the Archbishop referred, would be removed, and the sorrowing relatives of the suicide would in all cases have within call such consolation as the Christian burial of their dead might give. In the next place, there would be no necessity for thousands of men to perjure themselves every year, as there seems to be at present. But the greatest benefit would arise in cases of unsuccessful attempts at self-destruction. In all these cases the individual could be sent at once to the nearest lunatic asylum, where he, or she, would receive every care and attention, and the medical treatment required. This would certainly be much more rational and humane than the present system of locking would-be suicides in prison cells, where they not infrequently succeed in accomplishing the very act for which they have been imprisoned.

As a deterrent and as a stimulant relegation to the asylum would have exactly the same effect that committal to prison has at present—that is, it would have no deterrent effect whatever, and it would be effectual in insuring a large percentage of success among those attempting their lives.

On all these grounds, and on several others of minor importance which I need not here specify, I would strongly advocate the last-mentioned reform, viz., that it be enacted that all attempts at suicide, whether successful or not, be good and sufficient legal evidence of insanity; and, in unsuccessful cases, of insanity requiring immediate relegation to a lunatic asylum.

Criminal Responsibility of the Insane. By OSCAR WOODS, B.A., M.D. (Dublin), Medical Superintendent, Cork Asylum.

Many of those now present will probably agree with me that the law of criminal responsibility, as at present laid down, needs some alteration. This conclusion has, at all events, been forced on me by several cases that have come under my observation in recent years. I think, therefore, the present is a suitable time to bring forward the subject, especially as the custom as regards the examination of

prisoners is not the same in England, Ireland, and Scotland. The existing law is ruled by the answers of the judges to certain questions put to them by the House of Lords in reference to the case of the "Queen v. McNaghten," tried in 1843.

It is unnecessary for me here to refer to the trials of Arnold, Earl Ferrers, Hadfield, Oxford, etc., recorded in the able monograph by Dr. Orange in Tuke's "Dictionary;" but as the case of McNaghten created such an interest, and led to the definition of the existing law of criminal responsibility, I may shortly state that McNaghten was tried for the murder of Mr. Drummond, whom he shot in mistake for Sir Robert Peel. His counsel stated that he "brought forward this as a case, not of complete, but of partial insanity." He might have taken a much stronger position, as several witnesses proved the existence of delusions, especially of persecution, which had existed for years. The prisoner was found not guilty on the ground of insanity.

It was in consequence of this verdict that Lord Brougham raised a debate in the House of Lords, and certain questions were put to the judges, the answers to which have since defined the law of criminal responsibility.

Doubts have, however, been raised by so eminent an authority as the late Sir James Fitzjames Stephen in his "History of the Criminal Law of England," not only as to the authority, but also as to the correctness and sufficiency of these answers; and he admits that "when they are carefully considered, they leave untouched the most difficult questions connected with the subject, and lay down propositions liable to be misunderstood." His words regarding self-control are also all-important. "The proposition, then, which I have to maintain and explain is that, if it is not, it ought to be the law of England that no act is a crime if the person who does it is, at the time when it is done, prevented either by *defective mental power* or by any disease affecting his mind from controlling his own conduct."

The answers of the judges are shortly as follows:—

1. Notwithstanding that the accused did the act under the influence of an insane delusion, of redressing or revenging some supposed grievance or injury, or of producing some public benefit, he is nevertheless punishable.

2. That to establish a defence on the ground of insanity it must be clearly proved that, at the time of the committing of the act, the accused party was labouring under such a

defect of reason from disease of the mind as not to know the nature of the act he was doing, or, if he did know it, that he did not know that he was doing wrong (*i.e.*, the difference between right and wrong).

3. That the existence of delusions is no excuse for crime, unless the delusion has a direct bearing on the actual offence, *viz.*, if a man commits murder because he believes he is doing it in self-defence; in this case *only* is he not guilty.

One judge dissented from these answers, as he feared the answers might embarrass the administration when they are cited in criminal cases. These answers, however, still remain the law of the land, and I think that many of those present will agree that they have more than once embarrassed the administration of justice.

Is, therefore, a change in the law advisable? If so, is not the Medico-Psychological Association bound to express an opinion thereon?

The late Lord Coleridge, in trying a case of murder, is reported to have said: "The law which existed on the subject was not incapable of being so interpreted as to do terrible injustice." He cited a case in which an unquestionably insane murderer was hanged.

Mr. Justice Hawkins, in 1835, at the trial of an inmate of an asylum for murder, said "It would be absurd to suppose that the prisoner could be held responsible for his actions, but the law with respect to the responsibility of criminal lunatics appeared to him to be in a very unsatisfactory state." Again, he stated, "The judges generally had expressed similar opinions before, that the whole subject should be reconsidered, and that they should have some better definition of what constituted a defence on the ground of insanity."

Extracts of this kind from the charges of judges might be cited to a great extent, but it is unnecessary to do so here.

The following is an instance in which the judge did not strictly interpret the law. At the Chester Assizes in 1884, before Mr. Justice Cave, the counsel for the prosecution was about to address the jury as to whether the prisoner was capable of appreciating the difference between right and wrong. But his lordship replied, "No; the question is whether he was insane at the time. If a man is suffering from a delusion that his wife is going to poison him or is unfaithful to him, and he attacks her with a scraper, it is

as clear as possible that he is mad. In this case, the man, without doubt, knew the difference between right and wrong, and thought he had done an act for which he would be sent to the gallows."

Now to cite the opinion of a few medical authorities. In the "Journal of Mental Science" for January, 1876, Dr. Yellowlees publishes the interesting case of Tierney, who was tried for murder; and he states "that the Crown, disregarding the formal definition of the judges, has practically recognized that insanity, like other diseases, varies in degree." "That the insane retain more or less knowledge of right and wrong, more or less sense of responsibility, more or less power of self-control, are truths which have always been recognized by physicians."

We have the interesting case of Mr. North, published in the "Journal of Mental Science" in July, 1886, referring to a case of murder tried in York, 1859, in which the man was acquitted, and in which the evidence pointed only to *deficiency of mental power*. He states: "Viewed by the light of our present experience, it seems strange that there should have been a moment's hesitation as to the verdict. Viewed by the light of thirty years ago, his acquittal was a surprise to those who honestly believed him irresponsible." In this case the prisoner clearly knew the difference between right and wrong.

In another case, cited by the same writer, in which a man was tried for the murder of his own child committed in a fit of *transitory frenzy*, the charge of the judge was marked by a singular evidence of the decay of the old ruling of responsibility, and the prisoner was acquitted.

The three following cases have come under my own observation:—

Murder under the Influence of Delusions.—A man was tried some years ago at the Kerry Assizes for the murder of his wife. He had only been discharged from prison a fortnight previous to the crime after serving a term of five years' penal servitude for some agrarian offence. No evidence of insanity was observed during his imprisonment or at the time of his discharge, yet I had no difficulty in satisfying myself and the learned judge who tried the case that the man had laboured under a delusion for several months, and committed the crime under the delusion that a voice desired him to do so. The day after his discharge he sharpened a knife to commit the deed, but brooded for a fortnight over his delusion before he carried out his purpose. This man knew the difference between right and wrong; but this question was not put to the jury. I was merely asked if I believed him to be insane, and to give my reasons for so believing. Had the strict ruling of the judges been adhered to in this case the man would have been convicted.

Murder under Impulse and Delusion.—In January, 1888, a woman named

Doyle murdered her own son under the following circumstances:—Without any apparent premeditation, when surrounded by the members of her own family, she suddenly became excited, and in the course of a few hours took her imbecile son out into the yard and clubbed him to death on a dung heap. Her statement made to me on the next day was as follows:—"On Saturday night at cock-crow I took that fairy Patsy—he was not my son—he was a devil, a bad fairy—I could have no luck while he was in the house—carried him out of the house, threw him into the yard, and then got a hatchet and struck him three blows on the head." This woman suffered from hysterical mania for some months, when she recovered. At the ensuing Assizes she was found not guilty on the ground of insanity.

In both cases the prisoners were acquitted.

But the case that I wish specially to draw your attention to, and one deserving of record owing to the limited issue left to the jury, and the strong manner in which one of the most learned judges of the present day felt constrained to point out the existing law of criminal responsibility, is one in which it was admitted both by the Crown and Judge that there was mental deficiency. The simple issue left to the jury was—"Did the prisoner at the time he put the revolver to his mother's head know that he was doing a wrong act?"

The following are the facts:—At the time of the murder the prisoner was 27 years of age, and was acting as curate in a small parish in Kerry. His mother, the murdered woman, lived with him, and some time before the occurrence was not in good health, and was attended by Dr. Crosbie. The week before the murder an execution had been obtained against the prisoner, the bailiffs were in his house, but were withdrawn by the sheriff on account of statements made by the prisoner, which were afterwards found to be false. About 11 o'clock on the day of the murder prisoner sent for Dr. Crosbie to see his mother; at 12 o'clock he was handed some letters, but whether these contained anything that could have led to the murder is not known, in fact, there is some reason to believe that the deed was committed *before* the letters were handed to him. Between 12 and 1 o'clock he met the servant as he was going out carrying a carpet bag, and told her that Dr. Crosbie was not required, that his mother *had died of heart disease*, and was lying in the drawing-room. The servant found the drawing-room locked, and appears not to have taken any action for some hours. The prisoner walked to Tralee (about eight miles), went to the bank, found there was a small balance to his credit—a few shillings—and closed his account. He voluntarily told the bank clerk that he was greatly upset, that his mother *had died suddenly*. He then went by train to Killarney (twenty miles distant), stayed at the hotel that night, and next morning called on the rector of the parish and borrowed £2, and in answer to inquiry said *his mother was very well*, and that she would be glad to see him when next he came to Tralee. Prisoner took the key of the drawing-room away with him, and when the room was broken into by the police his mother was found lying on the floor with two bullet wounds in the head. After his arrest the Rector of Killarney (Archdeacon Wynne) again saw him, and when questioned he said that his mother *had committed suicide*. This was found to be impossible, *as the revolver was found locked up in the case, the key of which was in prisoner's possession*. It will, therefore, be seen that all the accounts given by him—to the servant, the bank clerk, and on the two occasions to Archdeacon Wynne—were different, and, except that to the bank clerk, all untrue, made without reason or object, and all capable of being easily disproved. The evidence given by his aunt and the medical witnesses I append in full:—

The aunt of the prisoner was the first witness called, and was being examined by Mr. Barry to show that the father of the prisoner suffered from nervous affection, when Mr. Moriarty, Crown Counsel, objected.

His lordship said that he had a doubt if he should admit this evidence.

Examination resumed—Witness said that the prisoner's father suffered from nervous affection.

His lordship—If I were informed of this evidence, I would not admit it. The most distinguished men in the world have suffered from this class of affection.

Mr. Barry—I pass from it if your lordship takes that view.

Examination continued—Witness said another aunt of the prisoner suffered from a mental malady for years. She got attacks which lasted for weeks, and required to be constantly under the care of a nurse. She got fits which recurred frequently. The prisoner at an early age suffered from convulsions and —

His lordship—That the prisoner suffered from convulsions in early life has nothing to say to this case.

Examination resumed—At nine years of age the accused was sent to school, and became so excitable that his books were removed entirely for six months. The doctor said that he was liable to get softening of the brain.

His lordship—Some people get that.

Witness said Mr. Griffin's habits as a boy were very eccentric. He was quiet and depressed, and did not care for companionship.

Another witness stated he remembered the death of the accused's father about four years ago. He had a morbid idea that his father would be buried too soon. He walked up and down the room where the corpse was lying, and it was with difficulty he could be prevented from sleeping in the room. He told witness he had whispered into his father's ear, "Don't be afraid, a friend is watching you," and he refused to believe his father was dead. The witness then gave evidence as to the prisoner's strange behaviour at Fahan, near Derry, at Castledermott, afterwards at Killynn. Prisoner's demeanour was very erratic and depressed. He seemed to be living within himself, and was very irritable at times. He took no interest in anything except a cat. The only thing that brought a smile to his face was a cat. During the time he was at Killynn he had influenza, and told a curious story about a rick of burning turf falling on him. About a month before his mother's death witness heard him one night talking to himself. He was gesticulating, and after a time jumped up and washed his hands, and then he proceeded to make his bed. He always made his own bed and washed his hands fifteen times a day.

Dr. Leslie Crosbie was next examined. When he first met the prisoner he was attracted by his peculiar behaviour, and he came to the conclusion that his intellect was weak. Two days before the occurrence he got a letter from the accused, asking him to come and see his mother. He obeyed, and again the prisoner's behaviour on that occasion attracted his attention. Prisoner's mother suffered from great nervousness, and prisoner seemed to take an affectionate interest in her. A conversation arose between prisoner and witness as to some fruit trees growing near the house, and witness asked, Used the boys to steal the fruit? Accused said he had bought a revolver, and he fired it about the place, and that kept them away.

His lordship—Do you consider that any great proof of mental derangement? No, my lord; I do not.

Mr. Redmond-Barry—Did you form any opinion as to his mental condition at that time? Yes.

What was it? I thought he was getting softening of the brain, and said so.

Cross-examined by Mr. Moriarty—If you had been applied to for a certificate to commit him to the asylum, would you have given it? *I certainly would.*

Dr. Oscar Woods was the next witness called.

You have heard the evidence dealing with this man as a boy, his character towards his relatives and strangers, his relations towards his mother, and so far as it is involved the family history of the man? Yes.

In your opinion did that indicate evidence of insanity on the part of the prisoner?

Mr. Moriarty objected to the question. He had no objection if Mr. Barry would ask Dr. Woods whether in his opinion the prisoner was conscious at the time the act was done.

His lordship—That question cannot be put at all. I will allow Mr. Barry's question to be asked.

Mr. Barry—Are the facts proved, evidence of insanity?

Dr. Woods—I consider that they are evidence all through life of an exceedingly unstable mind, and that he was on the border line of sanity and insanity for many years. I consider there is in this case some hereditary predisposition which would act as a predisposing cause, liable to be set aflame by a comparatively slight exciting cause.

Mr. Moriarty—Do you consider Mr. Griffith on the 23rd June was so mad that if he put a loaded revolver to his mother's head and pulled the trigger he would not know what the result would be?

Mr. Barry objected to the question, as Dr. Woods did not see the man at all on this occasion.

His lordship allowed the question.

Dr. Woods said he had not sufficient information before him to answer the question.

Mr. Moriarty—Having regard to what you have heard in court, and the evidence given of the prisoner's conduct and demeanour of the 23rd of June, do you consider he knew he was doing a wrong act in killing his mother?

His lordship—I won't allow that. That is the question the jury have to try.

Can you conceive a man putting a pistol to another man's head and firing it without knowing the result?

Dr. Woods—I cannot, except some exciting cause compelled him, over which he had no control.

His lordship—Even if it did it would be no answer to the charge.

This concluded the evidence.

THE JUDGE'S CHARGE.

His lordship, in summing up, said that there was no question but the prisoner's was the hand that took away his mother's life, and the other question remained:—Whether he was responsible for it—responsible on account of his mental condition—and his lordship had to tell them that the inflexible rule of law—that law that was instituted for the preservation of all classes and all interests, and by which they were bound to go wherever it led them, and whatever the consequences involved—was that a man was guilty of murder who took away a woman's life without just reason or excuse, if he knew the nature or quality of the act he was doing, and the main and central issue to which their attention should be directed was, whether or not, at the time on the 23rd June, the prisoner took away his mother's life, he knew that what he was doing was wrong—whether wrong morally or legally made no difference. It was a corollary to that proposition to define the degree of legal responsibility, and the law cast upon the prisoner in making out the defence to show that he was not legally responsible by reason of the state of his mind. The prisoner should make that out and show that the evidence produced by the Crown would lead them to the conclusion that he did not possess that state of mental faculty that would make him responsible. Every man was presumed to be sane by the law, because if they were to excuse misconduct or crime committed upon persons on the suggestion merely that they were not in that state of mind that would make them morally responsible, all society would be at an end, unless it was made out on sufficient evidence to warrant them in coming to that conclusion. The prisoner was allowed to perform the duties of a clergyman, and he appeared to have performed them in the ordinary way. His lordship should not entertain the least doubt that the evidence justly led to the conclusion that the prisoner may have been distinguished by some feature of nervousness at various periods of his life. All these were pieced together in a way calculated to produce a wrong impression in the minds of the jury. The question was not whether he ex-

hibited eccentricities or peculiarities of manner. The question was whether on the 23rd June he knew he was doing what was wrong or not. It would be his lordship's and their duty to withdraw their minds from any other consideration that did not affect that question. In the month of June the prisoner purchased a revolver in Tralee, and Dr. Crosbie had suggested a not unnatural explanation of why the revolver was purchased—and said that the prisoner said he had used it to frighten young persons from taking any of his property. It was not a usual possession for a clergyman, and the fact could not be left out of mind that it was with that revolver the woman's life was taken. On the Wednesday before the Friday on which the woman's life was taken, Dr. Crosbie was called to see Mrs. Griffith, and Dr. Crosbie had related some circumstances on that occasion which led him to form an unfavourable impression as to the steadiness of the mind of the prisoner. The prisoner questioned Dr. Crosbie concerning the assertion of the doctor that the woman had not heart disease, and stated to Dr. Crosbie that his mother had been examined by a Dr. Brew, of Bray, who had pronounced her to be suffering from heart disease. Let the jury carry that in their minds, because it was an important consideration. The prisoner told Ellen Russell, the servant, that her mistress died of heart disease, and the question was, when making that statement to Ellen Russell did he know that his mother had died from a wholly different cause. Could he have forgotten it? Could he have been mistaken? Supposing it was his criminal act, did he know or recollect whether she had died of heart disease, or was it a wilfully false statement made by him? If it were a wilfully false statement made by him, with what motive or reason was it made, or was there any motive whatever for it? Could he have been under any mistake at all as to the cause of her death? His hasty flight to Tralee, and his demeanour—were they suggestive of a disturbed mind, or were they but the ordinary drama of guilt? It was said there was no motive in the case, and it was suggested from this that he could not have committed the crime unless he was in a state of mental aberration, which took away from him all responsibility. But murder was murder, with or without motive. The taking away of human life without reasonable excuse or justification was the crime itself; and motive was only of importance as it might lead them to say whether the prisoner had made out—because it lay upon him to make it out—that he was not responsible for his acts. The use made of it in the present case was that this man could not have committed the crime, because there was no reason for his doing so. The Crown suggested one motive. If the motive of the prisoner in committing the act was to take away from his mother the disgrace and the suffering of present pecuniary hardship and future want, he was responsible for the act. There was another motive suggested, and that was these pecuniary difficulties pressing him hard, and operating on a not strong mind, led him to take an erroneous view of his own right, or his own power, or his own sense of the position, and had led him to take away his mother's life in order to remove her from those pecuniary difficulties. But they had nothing at all to do with motives except as they might lead them to the main conclusion, which was the question—whether or not he took away his mother's life knowing he was doing wrong? A lot of evidence had been given to show that the accused was not accountable. That was a defence to be watched with very great vigilance and very great care. Was there evidence to lead the jury to the conclusion that on the day he killed his mother he was unaccountable for his acts? The last witness of all examined was Dr. Woods, who was of considerable importance, not only for what he did state, but for what he did not state. He had heard all the evidence out, and the conclusion he came to was that he was a man of unstable mind—his lordship had come to that conclusion also. But that did not mean that he was insane when he took his mother's life. To be excused from the consequences of this crime the prisoner should make out that he was insane, and that he did not understand what he was doing when he committed this crime. Did he know at the time he put this revolver to his mother's head and fired it—did he know that

he was doing wrong, whatever his motive was—morally wrong or legally wrong there was no distinction? Did he know he was doing a wrong act? The jury were to judge of that in the best manner they could by his conduct, by all the circumstances of his demeanour, and upon that their verdict should depend. If their verdict was against the prisoner it was not they condemned him—it was the law and his own act, and they were outside all responsibility. If they had a reasonable doubt of his guilt the merciful law of this country required them to acquit him.

The jury, after forty minutes' consideration, returned to Court, when

The foreman said—I am afraid, my lord, there is no chance of our agreeing. There is some doubt about the doctors' evidence. Some won't agree that he was insane at the time.

His lordship—I have told you that the issue was whether he knew whether what he was doing was right or wrong, and you are to apply the evidence for and against that question, and determine the result.

A juror—The difficulty in the mind of some of the jury is how, after Dr. Crosbie deposed on oath that on the 19th June he would have committed Rev. Mr. Griffith to a lunatic asylum if he had been asked for a committal order, could they say beyond the shadow of a doubt he was sane on the 23rd June?

His lordship—You are at liberty to form that opinion, but you are to form your own judgment independent of the doctor's. One opinion cannot overbear the conclusion that arises in your minds from the whole of the evidence. You take the whole evidence, and form your opinion on the whole of it, whether you disregard part of it or not. You are bound to act on the evidence and form a true verdict according to the evidence. In every question submitted to a jury there is a conflict of evidence. If the evidence leads to a doubt—a reasonable doubt—you are entitled to give the benefit of that doubt to the accused by acquitting him. But you are to determine where that reasonable doubt is, and the other form of the proposition is whether the evidence reasonably satisfies you as to guilt. If you cannot agree as to your verdict there is only one course open to me. You say they cannot agree.

The foreman—I think so, on account of the doctor's evidence.

His lordship—You are not bound necessarily by what the doctor says. After the directions I have given you as to what is the proposition of law, namely, as to whether at the time of the act the prisoner knew he was doing what was wrong, applying the whole of the evidence to that issue, I must ask you to retire again and consider the matter further.

Mr. Moriarty—Once the prosecution has proved his was the hand that committed the crime, does not the onus of proving that he was insane rest with the prisoner?

His lordship—I will tell that to the jury; of course, I will take care to make it sufficiently guarded.

The jury were then called back.

His lordship, addressing them, said—Gentlemen, in connection with what I stated to you already, it is but right that I should tell you that once the crime was shown to be committed by the party, and the act is shown to be done by him, it lies upon the accused to make out to your satisfaction that he has a defence on the ground of insanity. If there is any deficiency in the proof, you are bound to find him guilty. I will read the rule of law in such an inquiry as you are engaged in, from which you cannot depart without violating the law and breaking your oaths:—"That the jury ought to be told in all cases that every man is presumed to be sane and to possess a sufficient degree of reason to be responsible for his crime until the contrary be proved to their satisfaction, and that to establish a defence on the ground of insanity it must be clearly proved that at the time of the committing of the act the party accused was labouring under such defective reason or disease of mind as not to know the nature and quality of the act he was doing, or if he did know it, that he did

not know what he was doing was wrong." His lordship having read this passage three times to the jury, said—I ask you to retire again, having taken that in your mind.

Mr. Michael Murphy (juror) said that according to Dr. Crosbie this man was insane on the 19th, and he would have committed him to a lunatic asylum. On the 23rd he committed the act, and was the conclusion to be drawn from the doctor's evidence that he was still mad on the 23rd?

His lordship—I should say you are at liberty to conclude it, but there are a great many arguments against your concluding it. Dr. Crosbie said he would have committed him to an asylum. He applied that observation to the prisoner. You may, if you are so disposed, draw the conclusion that there was insanity on the Friday afterwards. I must still draw your attention to the fact that when Dr. Crosbie said he was insane, it is not the same thing as, did he know what he was doing when he shot his mother?

When the jury returned into court the foreman handed the issue paper to the Clerk of the Crown, "Guilty of murder. It is the unanimous wish of the jury to strongly recommend the prisoner to mercy on the ground of his weak intellect."

Addressing the prisoner, Mr. O'Grady asked him had he anything to say why sentence of death should not be passed on him.

The prisoner—My lord, I have this much to say, that I did not, at all events, knowingly or intentionally, take the life of my mother. I declare that most solemnly before you and before God.

I had no opportunity of examining the prisoner, and was only able to form an opinion of his state of mind from the evidence produced in Court; from this I had no doubt that for a long time he was but a degree removed from insanity, and that anxiety regarding his mother's health and monetary troubles brought on an acute attack of insanity. I was, however, not allowed to state this opinion, and was confined to the one main question—Was I satisfied at the time he committed the crime that he did not know he was doing wrong? The evidence throughout pointed to a strong neurotic tendency; the prisoner suffered from convulsions at first dentition, was threatened with water on the brain, and had to be removed from school when nine years old; violent delirium from slight illness in later years. The learned judge objected to evidence of this nature, and in his charge stated that "all the features of nervousness were pieced together in a way calculated to produce a wrong impression in the minds of the jury."

The evidence of Dr. Crosbie could scarcely have been stronger.

The whole evidence of prisoner's life for years was that of a man bordering on insanity: constant restlessness, talking to himself, washing his hands perhaps thirty times a day, even in pools on the roadside. It was not because he was able to conduct a service and preach a sermon in a small

country church once a week that he must of necessity be sane. How many of our certified lunatics could not do the same? Several influential petitions for a reprieve were got up immediately after his trial, and the sentence was commuted to one of penal servitude for life. How long he will be able to stand the discipline of prison life it is not for me to prognosticate, but I have little doubt that eventually he will be committed to a criminal lunatic asylum. Why should not the procedure, as laid down by Sir Henry James in the House of Commons in 1884, be universally adopted, and the Crown required, in all doubtful cases of insanity, or when the plea of insanity is set up, to have the prisoner medically examined, and a special report made on the prisoner's state of mind, and also to "ensure that all evidence bearing on the case, whether tending to prove the guilt or innocence of the prisoner, should be placed before the jury."

But why bind the learned judges to such a strict rule of law that, in such a case as Griffith's, a jury is compelled on ruling to find a verdict of guilty, and the judge bound to pronounce a sentence of "Death," when I venture to say not a human being in the Court felt that the sentence could be carried out. Would it not be far better, instead of limiting the medical witness to say whether the prisoner knew the difference between right and wrong, or knew whether he was doing wrong, that he should be allowed to give his evidence in accordance with his full report to the Crown, subject of course to the strictest cross-examination. If this were the course of procedure I feel sure that the administration of justice would in no case be frustrated, and that the embarrassment of its administration, which now sometimes occurs, would be avoided.

The PRESIDENT—With much that Dr. Oscar Woods has said I heartily concur, and I wish to mention a case bearing on the subject. The judge referred to by Dr. Oscar Woods having, in my humble judgment, run a coach and four through all the laws of common sense at Cork (I wish to speak of him with no personal disrespect; he is one of the ablest judges on the bench, and a man of spotless integrity), came to Dublin a few weeks later and tried a similar case, in which I was interested, and which is a perfect proof of the mediæval absurdity of the laws of these countries on this point. One of my patients, a man subject to hallucinations and delusions—a chronic case of perfectly incurable persecutory and sexual delusion—kicked another patient one morning and ruptured his bladder. The patient died next day. The case was tried, as I have mentioned, and the judge refused to allow the question of the man's sanity or insanity to be put to the jury. He insisted that there was no question for the jury except whether the man, at the time he committed the

act, knew that he was doing what was wrong. On that question I was examined; and, of course, had to state what was, I believe, the truth, that the man did know that he was doing what was wrong. To be sure, not less than 1,300, out of the 1,500 lunatics that I have charge of, know when they are doing wrong. I need not dwell upon that. It is sufficiently known to every person acquainted with asylum patients. The judge was not content with my admission, but pointed out to the jury as proof that the lunatic knew the difference between right and wrong, that he actually excused himself when he committed the offence, and said that the other patient had given him provocation. And therefore, according to the rule of the judge, and also according to English law, it seems that any of our lunatics who murders a man and says "Well, I did it because he annoyed me," may be hanged. It appears that they are perfectly responsible. Could a more complete *reductio ad absurdum* be conceived?

Dr. MERCIER—Yes, sir; I think a more complete *reductio ad absurdum* can be conceived, and that is when the question of the life or death of an individual is to be determined by our own judgment of what was passing in the mind of that individual at the time, or perhaps for months before he committed the act. I ask you how it is possible for one man to know or determine what was passing in the mind of another? How are we to get into his mind and determine what was passing there? It is time something practical should be done, and before I sit down I intend to suggest a mode by which, I think, something could be done. But with regard to the varied voices of the judges on this question, there are some who insist absolutely on the strict letter of the law; that the question to be left to the jury shall be whether the criminal, at the time the act was committed, knew he was doing wrong. There are other judges who interpret the law with the widest latitude, and who leave to the jury the question whether the patient was sane or insane. In the first case, when the question only of right or wrong is before the jury, the practical effect of it is to exclude the expert evidence and all evidence which tends to show whether the patient is sane or insane. When a witness is placed in the box and is asked a question as to the patient's sanity or insanity, the judge interposes and says, "No, I will not allow the opinion of any expert, however eminent, to be submitted to the jury. When trial by medical men comes into fashion such a question may be put; but, so long as trial by jury is the law of the land, I will not allow such evidence to be given in this court." On the other hand, the late Lord Chief Justice, whose death we all deplore, in the trial of MacLean, said to the expert, "You are not to tell us the facts. We wish you, as a man of science and great experience, to tell us the conclusion at which you have arrived from the facts." Another judge, in another case, said, "I will not allow the opinion of any medical man to be placed before the jury. The jury are to hear from the medical witnesses the facts of the case, and upon those facts they are as competent to form an opinion as any medical man in the world." So that while the practice of the judges is so various, the law is in a state of chaos, and it is impossible for a person to know on what law a prisoner is going to be tried. Well, then, I wish to point out that the decision in the MacNaghten case, which is at present nominally the law of the land, and which guides the decisions of a large proportion of our judges, was not a decision of the House of Lords. The House of Lords put certain questions to the judges—those questions the judges answered, and the answers to them have been considered the law of the land. But I wish to point out to this Association that what has been done by a tribunal can be undone by that tribunal, and there is no reason why in the present state of our civilization, and having regard to the great increase in our knowledge since the time those questions were put, there is no reason why they should not now be put again to the judges, and if they were now put to them I think very different answers would be returned. It is scarcely possible that there are any judges in the present House of Lords who are not impressed with the imperfect

and unsatisfactory state of our law in these cases. Undoubtedly, most of the law Lords, if not all of them, are impressed with the extremely unsatisfactory state of the law, and I think that it would not require a great deal of pressure from this Association to have the matter again brought before the judges, and in that way the law could be altered without the tedious process of passing a new statute—a process which, in the present state of business in the House of Commons, is not to be hoped for. I venture to put this suggestion before the meeting, and hope that it may have some practical result.

The Insane in Workhouses. By Dr. M. J. NOLAN, Medical Superintendent, District Asylum, Downpatrick.

(Abstract.)

Some time since, when moved to speak on behalf of the insane population of Irish Workhouses, I did not fully contemplate the many difficulties of the task before me; and now, when we are on the eve of promised legislative measures, it may seem unnecessary to enlarge on this subject, as it is to be presumed that the philanthropy which has urged the Executive to take up the cause of pauper lunatics in our Workhouses, has formulated a Bill embracing all that the heads of the Lunacy and Poor-Law Departments can suggest. Nevertheless, it may not be without effect to elicit from those present to-day, representing as they do the special knowledge of insanity in this kingdom—I may indeed say in Europe—some expressions of opinion on a subject which in one shape or another must have been presented to their observation in the course of their experience. In asking your attention I feel that the subject commands your sympathetic interest, as, of all others, you can fully realize the extent and malignity of the disease, and the urgency for suitable remedies.

The Insane in Workhouses.—Is there not something paradoxical in the phrase? Scarcely were the Unions established when the lunatic poor were drawn from the various parishes and congregated within the workhouse wards. To this shelter came the dregs of society; they embraced every social and moral grade: the virtuous, the dissipated, the idle, the industrious, the educated, the illiterate, all levelled by poverty and disease—all met at a common goal. There has been no barrier in this descent; in this journey from “home” to “the lunatic ward” the road is clear of all forms—not even “red tape” stops the way. It is strange to reflect that, throughout the many years in which the insane

in public and private asylums found many and powerful champions, no one outside official ranks has spoken on behalf of the insane in workhouses. Yet with the latter there is no question of difficulty of access, proprietary interest, and such assigned injustices. The workhouse lunatic is housed in the most public of public institutions, uncertified, a burden on the ratepayer, who elects the "Guardian of the Poor" to manage the establishment. But the fault lies not so much in the Guardians as in the system, which permits the transmission from the ward to the lunatic department without certificate or official notification; which has no suitable accommodation, or skilled care for those so transferred; which permits of the battledore and shuttlecock system of transfer from union to asylum. The evil of lack of certification is radical, depriving the helpless insane of the benefit of legal recognition such as are enjoyed by the asylum patient, whose comfort is thereby secured by a yearly subsidy from the Treasury. From this want of certification arises the scarcely less evil—the want of classification. Here and there the strong light of publicity has been brought to bear, and laudable efforts have been made to treat the afflicted as unfortunate human beings, but the efforts so made are few and far between, and the most successful fall far short of what is required. Nor is this to be wondered at, as we know full well the difficulties in treating the insane in institutions specially erected and equipped for their treatment. Can it, then, be possible to treat the insane in places devoid of every necessary adjunct to care, comfort, and cure? Wards overcrowded, ill-ventilated, and cheerless; diet inadequate in quality, if not quantity; courts cramped and sunless; wardmasters and custodians drawn sometimes, nay, often, from the ranks of the insane themselves. No, not all the support of inspectors given to a humane managing body and a kind-hearted staff can cope with the evils of a system which is responsible for the creation of such a state of things—a system conceived in ignorance, matured in poverty, worked out in demoralization. Truly it is not too soon to institute a new and better order of things.

What is the remedy? Opinions have long been, and are still divided on the question. There is no doubt that circumstances differ so widely in the different countries—Ireland, England, and Scotland—that the same remarks and conditions do not apply to all. In this country, the Inspectors of Lunatics consider the condition of the insane in work-

houses in the main "to be far from satisfactory." In the course of their inspections they have noted the existence of dirt, over-crowding, fleas, other "disgusting vermin," filthy straw ticks, the use of "condemned" idiot cells, improper class association; and they have commented on the absence of sanitary and lavatory accommodation, of classification, of nursing, not to speak of ordinary care. One man is found who has not had a bath for five years, and a woman unwashed for ten. In all there is an utter disregard of the procedure adopted in asylums—no returns of admissions, discharges, or deaths; no diary of restraint or seclusion, bad supervision, little employment, no amusement. Over a year since they reported that in one establishment "it was quite impossible to visit the lunacy department without being struck with the evident desire of the Guardians to act liberally and benevolently towards the insane poor committed to their charge. They had provided a separate and large building for their accommodation; they had allowed a liberal dietary; they had appointed a medical officer to take special charge of the lunatic wards, in addition to the ordinary workhouse medical staff, and yet the results attained were not, for stated reasons, "entirely satisfactory." The past year has shown how far from satisfactory this establishment is, where the most laudable efforts have been made to treat the insane in a suitable manner, and confirms the truth of the proposition that lunatics cannot be treated properly in Irish workhouses. "The entire facts," says the "Evening Telegraph" in a recent issue, "which have been disclosed before the Belfast Coroner and in the House of Commons, reflect, not upon the management of the lunatic department of the workhouse, but upon the general system that prevails in Ireland of keeping lunatics in establishments where it was never intended they should be. . . . Sooner or later the whole question will have to be dealt with in a broad, comprehensive, and philanthropic spirit."

In their forty-seventh Report the English Commissioners in Lunacy declare that the condition and the provisions for the care and treatment of their insane inmates "remain satisfactory," and then go on to say:—"This may be also said with reference to most of the larger town workhouses and many of the smaller country ones. But some of the latter especially are still very defective. The accommodation afforded in them is of the poorest kind, and there is in many instances an entire absence of anything beyond

the barest necessities either for comfort, convenience, or health."

The General Board of Commissioners in Lunacy for Scotland give a brighter report. In the lunatic wards of the poorhouses one reads of "healthy and useful work," "kindly and judicious treatment," "wards in excellent order," "patients quite free from complaint," "all the requirements of the inmates are reported to be well supplied." Yet even here, we find recommended "the removal of several of the inmates of the lunatic wards of the Edinburgh City Poorhouse on the ground of their being unfitted for treatment in such wards; and this recommendation has received effect."

From this consensus of the highest opinion it is plainly evident and indisputable that lunatics cannot receive proper treatment in workhouses; that no matter what may be done to adapt these establishments to their wants, the asylum and the asylum alone can meet the necessity of the case. The "Lunatic Department" can never replace the District Hospital for Mental Disease. Nor is this to be wondered at. Mr. T. Lloyd Murray Browne, Local Government Board Inspector for an extensive English district (whose report is embodied in the twenty-second annual report of the Local Government Board for 1892-93), writes of the accommodation provided for the *sane pauper*:—"Very great improvements have been effected of late years in the infirmaries and sick wards belonging to workhouses and other poor-law establishments. This is true both as regards the buildings themselves and the character of the nursing. There are, of course, varieties. There must obviously be a difference between a little country union and an immense and elaborate establishment like the Birmingham Workhouse Infirmary. On this last neither expense nor trouble has been spared, and the results are certainly satisfactory. Nothing is perfect. But it is strictly true that it is hardly possible for the rich in illness to surround themselves with the same appliances and comforts as are here provided for the sick paupers of the parish of Birmingham. Nor are the rich better nursed or better doctored. . . . But though all this has been done, it yet remains impossible, unless in the very largest unions, to do all which can be desired for *all* the varying kinds and classes of sane and insane sufferers to be found under the care of the poor-law." In the same volume Mr. Fleming, another Inspector, reports:—"The requirements of a country workhouse can

scarcely be compared with those of a general hospital; the cases to be treated are different in character." How much stronger is the force of this remark when applied to the different requirements of a workhouse idiot ward, and the hospital of the county asylum. Much more of a similar character could be quoted in support of the view that the lunatics now in workhouse wards should be duly certified, and sent to asylums for treatment. As far as this country is concerned, the movement would not be one of any very great magnitude. From the annual report of the Local Government Board (Ireland) we find that but some 2,138 "simple lunatics" and "epileptic lunatics" stand in need of removal to our county asylums. For the "simple idiots" and "epileptic idiots" we hope to see some day a National Institution, "one of the greatest requirements," say the Inspectors of Lunatics, "in connection with lunacy in Ireland." From this number, 2,138, we may deduct those from Belfast and Dublin Unions, as provision for the insane of those districts has already been undertaken by the proposed erection of two new asylums. Deducting the number so disposed of—1,018—there remain but 1,120 to find room in the existing district asylums. The majority of these institutions are, however, standing in urgent need of increased accommodation; but surely any projected additions could be based on the reception of all suitable cases from workhouses.

Any attempt to suitably provide in our workhouses for the isolated groups of lunatics scattered over our workhouse wards would be of necessity a costly, and, from experience elsewhere, it may be assumed a very unsatisfactory experiment. The exact annual sum spent on the insane in workhouses cannot be readily ascertained. I find, however, on investigation, that on taking the average weekly cost per head of the aggregate union workhouses, the expenditure for provisions, necessaries, and clothing for the 1,120 is some £9,903 16s. 8d. The same number of lunatics maintained in district asylums would, at the annual average, *cost the counties* £13,272—the Treasury contributing the capitation grant of 4s. per week per head to make up the gross cost, £24,920. Thus, for less than the difference, £3,368 3s. 4d., the insane in all workhouses other than those of the Belfast and Dublin districts might be under care in the district asylums, for the whole cost of insane inmates of union workhouses has not been given. Were we in full possession of

the facts, the slight difference between the average weekly cost on the counties of the insane in workhouses (3s. 4d. 13-16ths) and the weekly cost of asylum patients (4s. 6d. 11-16ths) would be very considerably reduced. As it is, the £3,368 3s. 4d. may be further reduced by £273, leaving £3,095 3s. 4d. cost at the weekly average in the unions, 3s. 5d. 15-16ths of the twenty asylum districts, exclusive of Belfast and Dublin. This in the valuation of the districts would be represented by 1-16th of one penny in the pound.

In conclusion, I submit that (a) the idiots and epileptic idiots should be provided for in one or more suitable establishments; (b) that the "simple lunatics" and "epileptic lunatics" should be removed to district asylums, and thereby receive from the State the consideration and support of which they have hitherto been so unjustly deprived.

Dr. EUSTACE—As regards this matter, which has been so ably brought before us, every line is of extreme importance. I emphasize all that my friend Dr. Nolan has said. In this country there are no more miserable and distressed people than those we are speaking about. As an *ex-officio* member of a Board of Guardians, I have had the sad experience of witnessing their condition. I am not going to speak against the workhouse to which I am attached. But there are in it some hundreds of insane paupers, and the mode of caring for them is this: There is a paid officer, who is in charge of about a hundred. There is a female warder in charge of the females. Who are the assistants? Why, it is a case of the blind leading the blind. It is absolutely wrong that these people should be in the workhouse. They are lunatics, and are entitled to be taken care of as such. When they are not deemed quiet, chronic lunatics, we send them to the Richmond Asylum, and after being treated there we get them back should they become quiet demented. Well, I brought the matter before the Board of Guardians, and, by deputation, before the Chief Secretary for Ireland (Mr. Morley), and the result of that interview was, that Mr. Morley told us he was fully aware of the evils of the system, but that the treasury was the difficulty—how to get the money. In fact, the English purse is rather empty at the present time. These are not his exact words, but they are the spirit of his reply. However, the upshot of it all was that he promised to bring a Bill into Parliament, and led us to expect that it would be supported by himself. I understand that Bill is in preparation. Since that time Mr. T. W. Russell, M.P., has asked a question about the matter in Parliament, and it seems that the subject is receiving the consideration of her Majesty's Government.

Dr. OSCAR WOODS—The point which I wish to bring before you is that there are about 4,000 lunatics in the workhouses of Ireland. Asylums are practically overcrowded, and it would require about £400,000 to build sufficient for their accommodation. I am afraid you would need to agitate for a long time to get such a sum. There is at present throughout the country, however, a large number of buildings in which, if renovated and a little ground provided round about them, provision could be made for a great number of the harmless lunatics. I think in that way we might get them nearly as well looked after as in the district asylums. In most of our asylums we get too much of the chronic element. At the present time, too, lunatics in the workhouses are maintained by the Poor Rate, and that rate is paid equally by landlord and tenant. Now, if they are sent into the asylums, they are paid for almost entirely by the tenant out of the county cess. It is not, therefore, the same here as in

England and Scotland; for in those countries they are paid for by the Poor-Law authorities out of the poor rates. In no case is the Government grant given for patients in Irish workhouses.

Dr. KENNY, M.P.—At one time not very long past I was Medical Officer of one of our largest Unions—the North Dublin Union. Most of the insane there belong to either the imbecile or epileptic lunatic class. Now most of us are well aware that structurally our workhouses are unsuited for the care, not alone of lunatics, but even of the ordinary sick poor. The older Unions would have to be entirely reconstructed in order to be made suitable for the reception of the sick poor, not to speak of lunatics. Before I was appointed to the North Dublin Union there was no attempt whatever made for separation between the insane and the other side, or even casual inmates, and in my opinion it was not possible to conceive any more undesirable condition of things than there existed. I had not the advantage of hearing Dr. Nolan's paper read, but I believe his proposition is that the insane in the workhouses throughout Ireland might well be divided into two classes, one of which might be retained in the Union, and the other be removed to asylums. There is much to recommend such a division, but I cannot quite agree that such a mode of dealing with this matter is the best that could be devised, though it would be an immense improvement on the present wretched system, and should be adopted if nothing better can be done. I agree, however, with Dr. Eustace that no insane ought to be housed in our Unions. Dr. Wood's suggestion of utilizing certain buildings is, I think, sound. With regard to suggestions of economy, whilst I agree that true economy should be practised, I don't think in dealing with a matter so important we ought to lay too much stress on economy, in the sense in which that word is too generally used. There can be no true economy where you have not efficiency, and unless economy secures efficiency it ceases to be economy, and becomes waste. Free and generous expenditure which at one stroke accomplishes the object in view is most frequently the truest economy, whilst partial and imperfect treatment is only tinkering and useless. Let us find out what is the best method, and having done that, let the best method be adopted, no matter what the cost. I am of opinion that all insane persons are better out of the Union altogether. I have seen very grave accidents occur in the North Dublin Union arising out of the want of proper arrangements for the care of lunatics there, arrangements which under the existing circumstances it is impossible to carry out properly. As to the question which Dr. Woods has raised, viz., that we should have rates for the support of the insane, divided as between landlord and tenant, if no better plan could be suggested I would agree that the rates, if local, should be so divided; and as to the general question as to the incidence of rates, whether local or general, I think the proposition is sound, but I wish to go much farther in reference to the question of expenses attendant on the care of the insane poor. In my opinion their care rests upon our shoulders as a matter of national importance, and for that reason the payment for them ought to be at the cost of the nation at large. It is too wide and too vital a subject to be treated from a local standpoint. I think we should try to secure such a reform in the law as would make the housing and treatment of lunatics a matter of national importance and national payment. With regard to the question of increase in lunacy, if I am in order in referring to it now, I should like to say just a word. Some authorities hold that the increase in lunacy is an actual and absolute fact, whilst others hold that the increase shown by the annual returns is only apparent, and may be accounted for by a variety of circumstances more or less of an accidental and transitory character. Without expressing any opinion as to which of these views is the correct one, though I hold strong opinions on the subject, I regard the decision of this question as of vital importance. If it were alleged that any other form of grave disease were on the increase at such a rate as this most terrible of all maladies is increasing, such alleged increase would naturally be the subject of very deep and

anxious consideration by those who have to legislate upon the subject. I have on the paper in the House of Commons at present a notice calling attention to this matter; and it was my intention to suggest to the Government that the question was of such vast importance, not alone nationally, but also internationally, that they would do well if they could see their way to invite the co-operation of foreign Governments with a view to the formation of an international commission to inquire into the whole subject. I think if this were done we should have a great deal of useful information which would help to elucidate the subject, and enable us to decide whether lunacy is really on the increase or not. Many most important questions might be decided by such a commission, which might suggest the best methods of dealing with the entire subject. The question also whether unmixed races were more prone to be afflicted with insanity than mixed or composite ones might be decided, and above all we might get an authoritative pronouncement on the all-important questions of heredity, and the pressure of modern civilization as factors in the production of insanity. A resolution emanating from a Society of such weight and authority as the Medico-Psychological Society of Great Britain and Ireland recommending that the questions should be dealt with from an international standpoint could not fail to impress any Government, and could not be lightly passed over. Such a resolution from this Association would without doubt and most obviously tend greatly to strengthen the hands of anyone in Parliament who might take action in the matter.

The PRESIDENT—Dr. Clouston has intimated his intention of moving a resolution on this subject, and I have directed the Secretary to call a meeting of the Council to-morrow morning at 9.30 to consider the question before laying it before the meeting. By the rules which regulate our proceedings we cannot consider the matter to-day. We can only consider a matter of which previous notice has not been given when Council has ordered that it shall be considered.*

Dr. ATKINS—The insane in our workhouses in Ireland do not receive the benefit of the Treasury grant. Their accommodation is a kind of Augean stable, which should be cleared out as soon as possible. I thoroughly endorse Dr. Woods' idea of allocating many buildings through the country to the insane poor. But then I think they should become an Imperial charge. Now when the attention of the Guardians is called to these poor people they simply say, "We have no means of supporting them, and we cannot treat them better than ordinary paupers. Give us 4s. a week and we will treat them as well as asylum patients." I am perfectly well aware that the Government grant is assuming vast proportions, but I do think if they cannot see their way to fully adopt the recommendations of the Lunacy Inquiry Commission, they should give a certain sum to the Boards of Guardians of the various Unions to support the poor in those districts. If this were done, the condition of the insane in workhouses could be very quickly ameliorated. That condition is worse in large workhouses than in small ones; and I know, speaking for the provinces, that there are workhouses where the state of matters is not so very bad. Dr. Kenny has spoken of the North Dublin Union Workhouse, where the insane were mixed up with the casual inmates, but in the workhouse of which I have cognizance the female patients are kept altogether separate.

Dr. O'NEILL—I think that the question is not a matter of increasing the number of asylums, but a matter of ridding us of quiet and harmless patients.

Dr. HACK TUKE—I have no knowledge of the management of workhouses in Ireland, but I have visited a large number in England to consider how far they could be utilized so as to prevent the overcrowding of asylums. And my experience is this, that there are many of the workhouses in England that are utterly unsuitable to take charge of the insane. But I believe that in many others it would be quite justifiable to have chronic lunatics. With regard to

* By decision of the Council Dr. Clouston's resolution was postponed until the next General Meeting.

economy and efficiency, I think Dr. Kenny will admit that if we have to choose between a palatial asylum and one which is plain but efficient, we should choose the latter. I think there are many institutions suitable for chronic cases which are not suitable for acute cases. I feel that Dr. Kenny's remarks on having an international commission in regard to the great question of the increase of insanity are very important.

Dr. CLOUSTON—You are aware, sir, that in Scotland we have so-called lunatic wards in our poorhouses properly organized for the purpose of receiving the mildly insane, with a better dietary than the rest of the house, and under the control of the Commissioners—each patient receiving a certain proportion of the Imperial grant, just the same as in asylums. And our experience is that where these wards are well-managed they can accommodate something like one-fourth or one-fifth of the total number of lunatics, imbeciles, and idiots in the district, and in some cases more. The way the patients are selected is this—The Inspector of the Poor, who is the chief parochial administrative officer, writes to me to say that he has so many vacancies in the lunatic wards of his poorhouse, and we select such cases as are quiet and manageable, and can derive no further benefit from asylum treatment. I send these cases to the poorhouse, and, if they fail, there is no difficulty whatever in returning them to the asylum. I let that be understood. And the result is this—The poorhouse exists already; and the expenditure on its wards and grounds has already been made. In Scotland I am glad to say that nearly all our poorhouses are not full, so that there are usually spare wards available for the purpose. The Commissioners dictate the kind of diet, and visit once a year. In addition, when certain of these cases are found particularly quiet and easily managed, the Inspector of Poor boards them out in the country. Taking the 900 patients belonging to our Edinburgh parishes, 90 of these are in the poorhouses, 330 are boarded out, and 480 are in the asylum. This represents a saving of the capital sum of £80,000 that would have been required for buildings if these chronic patients had been in a regularly-equipped asylum. We keep all the dangerous cases, the worst epileptics, and those that give trouble; and we treat all the recent insanity, acute or not. But when patients have passed through such a stage (and we all know that they do pass through it by the hundred) by our Scottish system we get rid of this quiet dementia. The patients are about as well off, often being more happy boarded out, and the saving to the country is very great indeed. The asylums do not require to be enlarged by those enormous “annexes” that are killing the very medical life of the English asylums. And we can undertake the medical work of caring for our patients, for these have not exceeded 500 in the 21 years during which I have occupied my present position. This is the best certificate of success to any properly-organized system of workhouse-lunatic wards and boarding-out.

Dr. URQUHART—If I would emphasize anything that Dr. Clouston has said it would be a matter of the greatest importance in Scotland, and that is that the Commissioners in Lunacy are satisfied as to the state of those patients who are committed to the workhouse. The patients do not filter through workhouses into the asylums; but, on the contrary, they are passed through the asylums, and such as are fit for it are drafted into the workhouse. This is the key to the whole position. In Ireland, I think that the inspectors should have power not only to say that the workhouses are faulty, but actually to ameliorate the condition of them. I am sure that we all sympathize with Dr. Nolan in his endeavour to bring about a better state of things.

Lunacy Legislation for Ireland. By JOHN EUSTACE, M.D., J.P., Hampstead and Highfield Private Asylums, Dublin.

My attention has been drawn to the question of fresh Lunacy Legislation for Ireland, by the report of a Committee which was appointed by the Lord Lieutenant of Ireland in 1891 to enquire into the lunacy administration of this country.*

This Committee consisted of Sir Arthur Mitchell, K.C.B., Commissioner in Lunacy, Scotland; Mr. Holmes, C.B., Treasury Remembrancer in Ireland; and Dr. McCabe, of the Local Government Board.

Their report has already been very fully criticized in the admirable memorandum of Lord Ashbourne, then Lord Chancellor of Ireland, assisted by Mr. Collis, LL.D., Registrar in Lunacy, by the Right Hon. Mr. Justice Holmes, the Right Hon. Lord Justice FitzGibbon, and by the Right Hon. R. R. Warren, Judge of Court of Probate. To save time, I refer to this memorandum,† as it is well worthy careful perusal, and I acknowledge my indebtedness to it as a basis for my subsequent remarks.

To return to the report. It practically consists of a recitation of the Scottish Lunacy Laws of the present date, with the recommendation that they should be applied in their entirety to the case of Ireland, apparently without considering that, however admirably these Acts may work in Scotland, the conditions under which they would be applied, both as regards the central and local authorities in Ireland, would be vastly different.

In fact, were the suggestion to be taken seriously, all the judicial arrangements in Ireland would first have to be "adjusted" to suit this scheme of lunacy legislation. In the report there are some suggestions which appear to be original, particularly with regard to judicial supervision in connection with the committal of the person of alleged lunatics to asylums and with the management of their property, but on closer inspection one finds that these suggestions have been largely forestalled by the provisions

* "First and Second Reports of the Committee appointed by the Lord Lieutenant of Ireland on Lunacy Administration (Ireland)." 1891.

† "Memorandum of Lord Ashbourne, Lord Chancellor of Ireland, on the Reports of the Committee of Lunacy Administration appointed by the Lord Lieutenant." Thorn and Co., Dublin, 1892.

of the Lunacy Act Amendment of 1871, "with the practical working of which the Committee seem to have been singularly unacquainted or unobservant."

The Committee found fault with the provisions of our present Acts with respect to the authority for admission and detention in asylums, and they suggest that the procedure for authorizing the admission of persons into asylums should be the same for the rich as for the destitute.*

Let us now see how we stand in this respect in comparison with the English and Scottish modes of procedure. In Ireland, in the case of admission of a patient into a district asylum, one medical certificate and the magistrate's order in the case of the insane poor, with the addition of another medical certificate in the case of a paying patient, is necessary. In any case of urgency admission may be granted by the medical superintendent, or governors, or visiting physician, the case being submitted to the Asylums Board at its next meeting.

Under the same circumstances in Scotland, the medical superintendent may sign an urgency certificate, valid for three days, in the case of either a pauper or a private patient; and may, in addition, sign one of the ordinary medical certificates in the case of a pauper. Thus, in the case of the insane poor in Ireland, practically as much protection is enjoyed in this respect as under similar circumstances in England or Scotland.

In the case of the admission of a patient into a private asylum in Ireland, an order by the patient's nearest responsible guardian, together with two medical certificates, is sufficient; and the patient has not the benefit of judicial supervision at the time of committal, corresponding to what obtains in Scotland, where the Sheriff's order is necessary—or in England, where the order of a magistrate is necessary (except in cases of emergency). The want of this protection is especially apparent in the case of those detained in Irish workhouses under no judicial authority whatever (*vide* Report, p. 30).

In the case of private patients in Ireland, the want of the judicial order at the time of admission is mitigated as far as the protection of the patient is concerned by the fact that the superintendent must give notice within two days of the admission of the patient to the Inspectors of Lunacy. These officials are, therefore, made cognisant of all admis-

* Report, p. 34.

sions one day sooner than is the General Board in Scotland, where the three days' notice of physical condition is necessary. Further, in obedience to the Lunacy Regulation (Ireland) Act, 1871, a full return must be made by the superintendent to the Registrar in Lunacy, and within seven days, giving particulars as to the date of admission, the person by whose direction the patient has been admitted, the names of the medical practitioners signing the certificates, together with a notice respecting the property, if any, of the lunatic. The Irish Registrar is thus early in possession of important facts regarding the patient, who enjoys all the benefits of his case being immediately under the cognizance of the Registrar in Lunacy of the Court of Chancery. While I would suggest some form of magisterial supervision connected with the admission of patients, as in the English Act of 1890, it should not by itself be held sufficient.

In Ireland far too many persons are committed to district asylums as "dangerous lunatics" by a magistrate's order, and in many cases those so committed are found to be sane. I fear that the new democratic order of magistrates now being so freely created in Ireland is not likely to prove competent to judge of the state of sanity or insanity of these "dangerous" cases. In one case, which I have good authority for quoting, a man was sent by a magistrate's order to a district asylum as "a dangerous lunatic," largely on the evidence of his having become a convert from Roman Catholicism to Protestantism! He was visited by order of the Lord Chancellor and shortly afterwards liberated.

The recommendation of the Committee in the report that the Board of Control should be reconstituted, and the adoption of the same, deserves praise, as does also the suggestion as to the accommodation for the insane poor (technically there are no "pauper lunatics" in Ireland, as the maintenance of the insane poor is derived from the "county cess," and not out of the poor rate as in Great Britain). The Committee refer with pleasure to a clause of the Irish Lunacy Act of 1845, of which the purpose seems to be the appropriating of certain district asylums for the care and treatment of particular classes of lunatics—the incurable, the manageable, and those who do not require to be in a fully-equipped asylum, such as is required for acute curable cases. They rightly say that "the general intention

of such legislation is sound, and if effect were given to it, the hospital character of many asylums would be increased," and this is what is now everywhere aimed at under good lunacy administration. The admission of voluntary patients to asylums is also commended by the Committee.

As regards the actual working of lunacy administration in Ireland, the Committee recommend that a General Lunacy Board for Ireland should be instituted, devoid of any direct judicial authority, and here I fear they almost ignore the weighty position occupied by the Lord Chancellor, who, "by virtue of the Queen's Sign Manual, is entrusted with the care and custody of persons found lunatic, idiot, or of weak mind." The constitution of such a Board under the circumstances named would be absurd, seeing that it does not include "the present independent, direct, and easily accessible judicial authority," *i.e.*, that of the Lord Chancellor, who, having supreme jurisdiction over all insane persons in Ireland, and from being in constant contact with their persons and affairs, is, indeed, a most potent safeguard against unnecessary detention in asylums. And yet the Committee state that the present Irish system possesses no such safeguards!

As regards inspection of lunatic asylums, the Committee report that it is not adequate. Were, however, the jurisdiction of the Lord Chancellor to be lessened, there would be much less inspection, for the Lord Chancellor has, in Ireland, more than sixty medical visitors, who, at a moment's notice, make prompt and searching inquiry into any case brought under the notice of the Court in any way, public or private. I may mention as worthy of the highest praise the personal visits of the late Lord Chancellor, and also the fact that the Registrar in Lunacy, Mr. Collis, LL.D., usually devotes two days each week to similar visitation. These frequent unannounced visits do good, not only to the chancery patients, but also benefit the general discipline of asylums. Further, under the provision of the Act of 1871, the Lunacy Office of the Court of Chancery takes cognizance of and institutes inquiries as to the property, etc., of alleged lunatics, and uses the same as a petition on which to hold a commission if necessary. This, on the whole, compares very favourably with the Scottish mode in the case of the corresponding class in Scotland. There the "Board" constitutes, so to speak, the "Committee of person," and a

third party, the "Curator Bonis," constitutes after appointment the "Committee of Estate."

Under the Scottish law, from the fact that there is no Lord Chancellor, it is possible that a patient's property might be dissipated before the appointment of this "curator," which is practically always on the initiative of a third party. Then, again, there are no officials in the Scottish system corresponding to the medical visitors of chancery patients under the Chancellor's vigilant Registrar. Patients with property under curatory are simply visited twice a year by the Commissioners as ordinary private patients, and there is not that special supervision enjoyed by chancery patients in Ireland. An important point in a poor country like Ireland is that this staff is maintained without cost to the State, the expenses being borne either by the income of the particular lunatic or by the Lunacy Fund of the Court. Chancery patients constitute the great majority of the inmates of private asylums, which are virtually chancery asylums. These private asylums should, I think, be licensed only by the authority of the Lord Chancellor, and not by the magistrates as at present.

One other point on which I should like to touch, is the subject of "boarding-out" of pauper lunatics in Ireland, and for which such a strong claim has been put forward by Dr. Clouston, arguing from his experience in his own country. However admirable in theory it may be and even practically workable in Scotland, I fear if adopted in Ireland it would mean a reversion to all the abuses following these pauper lunatics being left to the care of their friends, as was the case before the adoption of asylum care of lunatics in Ireland.

Similarly with respect to the care of lunatics in lunatic wards of poorhouses, the present abuses of the system are so glaring that I need hardly again refer to the subject. Judging from an interesting article by Dr. Rorie in the "Journal of Mental Science,"* the danger of the control of pauper lunatics passing entirely into the hands of Parochial Boards is by no means insignificant, and I fear, in the case of Ireland, any further extension of power entrusted to "guardians" will only be attended with an aggravation of the present evils.

In conclusion, I think that an attempt to remodel Irish

* "On the Present State of Lunacy Legislation in Scotland: An Historical Note of Warning," by Jas. Rorie, M.D. "Journal of Mental Science," April, 1888.

lunacy along the lines suggested by the Committee would be a mistake, but a system somewhat analogous to that of England, which has, as in Ireland, a Lord Chancellor's jurisdiction, and much the same code of law, would be more feasible. I have to thank Dr. James Cameron for his aid in connection with some points of Scottish Lunacy Law.

Two Cases of Insanity with Goitre treated with Thyroid Extract. By THOMAS SAMUEL McCLAUGHEY, L.R.C.S.I.,
Assistant Medical Officer, District Asylum, Maryborough.

I desire to call attention to a mode of treatment which has not yet been generally adopted in cases of goitre, and to submit two cases in which thyroid gland was administered. The preparation used was five grains of the extract in tabloid form. The result in both cases was highly encouraging, though one was much more so than the other from a mental point of view.

Case I.—Maria R., admitted 20th August, 1891, having previously attempted to set fire to her house and to murder her husband and son. From then till 27th January, 1894, she had undergone various means of treatment for a large bronchocele from which she suffered, her mind during this time being very much deranged. She was treacherous and morose, wandering about in an apathetic manner, taking no interest in her surroundings, never employed in any way, and, if thwarted, inclined to be violent. During this period all medicines recommended by modern teaching had been employed (with the exception of injection of tr. iodine), but without any obvious change in her mental state. She had, indeed, passed into the category of almost hopeless cases.

On January 27th, 1894, after consultation with Dr. Hatchell, it was decided to employ the thyroid treatment. One tabloid of five grs. was given in each meal, as she refused to swallow them. The measurement of her neck on that day was 15½ inches.

On February 11th, about a fortnight after commencement of treatment, I made a very careful physical and mental examination, and found a marked improvement. Instead of the patient walking away or holding down her head when questioned, she now answered in a fairly intelligent manner. On measuring her neck I found it to be but 15¼ inches, showing a decrease of half an inch. At this period I reasoned with her, and asked her to take the tabloids, which she consented to do, having been up to this time unaware that they had been administered in her food.

On February 27th, one month after commencement of treatment, I found the circumference of the neck to be 15 inches, showing a decrease of three-quarters of an inch. Her mental improvement was very marked, having become bright, cheerful, and industrious, taking an interest in her surroundings, and frequently speaking about her home and children.

March 6th.—As the tabloid treatment has not caused any disagreeable symptoms, such as digestive disturbance or variation in temperature, it was decided to give an extra half tabloid at each meal.

April 18th.—Patient to-day complains of a lightness in her head, which has

troubled her for some days, and which she attributes to the tabloids; they are accordingly suspended.

May 8th.—Although the treatment has now been suspended for about three weeks there has been no relapse; tabloids are again resumed, one at each meal.

June 8th.—Treatment stopped, as she is now apparently quite rational. She frequently speaks about her home and children, and wishes to be discharged. She has undergone a complete transformation.

Case II.—Elizabeth K., admitted 7th August, 1893. She had been very violent previous to admission, having assaulted her father and mother and suffered from the delusion that her house was surrounded by men who attempted to get into her bed at night. From the time of admission till 27th January, 1894, her mental symptoms very much resembled the former case. She was morose and listless, and never employed herself in any way. When questioned she would very seldom answer. Thyroid treatment was begun on the same day as in the former case, the result being that the mental change was not quite so marked, but the physical change was much more decided, as the bronchocele has completely disappeared. The loss in flesh was also much greater. At present she is quiet, obedient, and industrious, and is apparently quite happy, but very seldom speaks.

Observations upon the Pathology of Othæmatoma. By EDWIN GOODALL, M.D., Joint Counties Asylum, Carmarthen.

About the close of 1892 I examined bacteriologically some cases of othæmatoma, with a view of ascertaining if there was any basis for the idea which occurred to me, and which I mooted in an article in the "Journal of Mental Science" for April, 1893, that that condition was the result of bacterial activity. In none of the cases examined was there a history of injury. In the first two (an adult imbecile and a chronic maniac) cover-slip preparations of the extravasated blood—taken with full precautions as regards cleanliness—showed staphylococci, singly, in twos, in fours, and in small groups. In size the cocci resembled closely *S. pyogenes aureus* or *albus*. An attempt to cultivate the organism on gelatine and broth failed; unfortunately no agar was at hand. In the light of subsequent experience, I believe that this failure may, with much probability, be attributed to the fact that the amount of material transferred to the culture-tubes was too small. Several drops of the sero-sanguinolent extravasate should be taken for each tube. In the third case (that of a dement) what appeared to be the same organism was found in the cover-slip preparations, and grown upon broth and agar in pure culture. A thick zooglœa-mass formed upon the surface of the broth. Upon the agar the growth first appeared in white points, these later ran together, the growth assumed a yellow tint, and the appearance became

altogether like that of a cultivation of *S. pyogenes aureus*. In other tubes, however, the growth remained white throughout, so that *S. pyogenes albus* was present as well.

In Case IV. (melancholia with stupor, much resistance), preparations and cultivations were made with similar results, except that the growth was in this instance pure white, exactly like that of *S. pyogenes albus*.

In Case V. (general paralysis) apparently one of the same cocci as were present in Case III. (*S. pyogenes aureus*) was found upon the cover-slips and nutrient media.

In all cases the blood was taken for examination within two days of the appearance of the extravasation, with a single exception (in which, it may be noted, the cocci were present); in this case the hæmatoma was a fortnight old. Growth appeared, in the various cases, in from 24-48 hours, at the body temperature.

I have lately examined in two other cases (of general paralysis), with negative results.

In one instance there occurred in the cover-slip preparations, in addition to the cocci, a torula. This specimen Dr. Sims Woodhead kindly examined for me. In his opinion the presence of the yeast rendered it probable that, in this case, at any rate, penetration of surface-organisms had taken place through the superficial tissues into the subjacent extravasate, owing to impairment in the nutrition of the former. Dr. Woodhead allowed, however, that this explanation was open to doubt. The almost invariable occurrence of the cocci within small plaques of homogeneous appearance (stained a faint violet by gentian-violet) renders it, I think, very improbable that they were mere surface-impurities.

It remains to be determined whether micro-organisms occur with any degree of regularity in the sero-sanguinolent fluid present in the tissues of the ear in othæmatoma, and, if they do so occur, whether an etiological significance attaches to them. Such a supposition is, in my opinion, perfectly rational, and not necessarily inconsistent with a history of traumatism, where that can be established.

It would further be of interest to examine bacteriologically the extravasated blood in recent cases of "hæmatoma of the dura mater."

Within the past two months I have come across an article in "*Rivista Sperimentale di Freniatria*," Vol. xviii., fasc. 384, 1892, by Pellizzi, from which it appears that that in-

investigator has found streptococci in the sero-sanguinolent extravasate in five cases of othæmatoma. This affection Pellizzi believes to have an infective origin. Upon this opinion he bases an antiseptic method of treatment—viz., free incision into the cavity of the othæmatoma, followed by thorough washing out by sublimate. Pellizzi's observations and my own are independent. The priority rests with him, though I became aware of his results only this year. The fact that the respective investigations point in the same direction, as regards results, enhances the interest of the subject with which they were concerned.

The Morbid Changes in the Cerebro-Spinal Nervous System of the Aged Insane. By ALFRED W. CAMPBELL, M.D., Pathologist, Lancashire County Asylum, Rainhill.

Of recent years a considerable amount of study has been devoted to the nerve changes which are to be found in sane patients dying during the senile epoch, but comparatively little has been written concerning the alterations which occur in the nervous system of aged insane individuals. The object of this communication is to attempt from the pathologist's standpoint to elucidate some of these characteristic senile phenomena. I propose to briefly describe the morbid changes, both macroscopical and microscopical, which in my experience occur in aged insane persons, and to conclude by offering some remarks on the pathology of certain of these phenomena which I have particularly investigated. Before proceeding further, I would mention that the entire material for my observations has been afforded by the Lancashire County Asylum, Rainhill, and to Dr. Wiglesworth, the Medical Superintendent of that institution, I am indebted for permission to make use of that material and the asylum records in the compilation of this paper. My investigations have extended over a period of 18 months, and comprise the partial examination of the nervous system of all patients over 60 years of age who have died since my appointment as pathologist to the asylum. Of such cases there have been 22 males and 28 females, their average age at death being 67·6 and 70·5 respectively.

Changes in the Encephalon (Macroscopical).—Adhesions between the dura mater and calvarium are frequent, and render the complete separation of that membrane from the

bone a matter of difficulty. In cases where no adhesion exists and the calvarium is readily removed, a slackness and dimpling of the dura mater—particularly of the frontal area—is generally seen, and proclaims an atrophy of the enclosed parts. The subdural hæmatoma or so-called pachymeningitis interna hæmorrhagica, so frequently met with in general paralysis of the insane, is not uncommon in senile insanity. Of 54 cases of that affection observed by Dr. Wigglesworth¹ in this asylum, 12 occurred in patients over 60 years of age, while in a series of subdural hæmatomata collected by Sir J. Crichton-Browne and Dr. Bevan Lewis² at the Wakefield Asylum, nine per cent. occurred in cases of “pure senile atrophy” of the brain, and 26·5 per cent. in cases of “chronic disorganization of the brain” (which, I take it, includes many senile cases); and, lastly, of the 50 cases of senility which I have examined, four presented this condition. The subdural fluid is invariably increased in quantity. The arachnoid membrane, particularly that covering the sulci and meningeal veins, is generally opaque, and the pachionian bodies hypertrophied. A subarachnoid hæmorrhage I have only seen in one case, viz., in a demented female, æt. 78, who a few days before death suddenly became partially paralyzed in the extremities of the right side. At the autopsy an extremely wasted brain with a great excess of cerebro-spinal fluid was found, and lying in a hugely dilated subarachnoid space, situated at the point of junction of the horizontal limb of the intra-parietal sulcus with the post-central sulcus on the surface of the left hemisphere, was about 1½ ounces of dark, clotted blood and sanious serum. This was obviously pressing upon subjacent parts of the ascending parietal, superior parietal, and supra-marginal convolutions—hence the paresis. The source of the hæmorrhage was not discovered, but that it issued from a ruptured, small pial vessel was doubtless. Further, that the hæmorrhage had actually occurred into the subarachnoid space was undeniable, as the stretched arachnoid membrane was clearly distinguishable confining it, and on the surface of the underlying cortex, which, by the way, was not lacerated, the delicate pia mater could be plainly traced. The subarachnoid fluid was greatly increased in quantity, forming lakelets or lymph cisterns, as a French writer calls them, on the surface of the brain. The pia mater is usually thickened, but is easily torn and seems water-logged, so to speak. The pia arachnoid strips readily from the surface,

in fact, can often be detached in one sheet, but it does happen in some cases, especially if the brain be somewhat decomposed, that its removal is accompanied by a decortication exactly similar to that which is described as characteristic of general paralysis. In all the senile brains which I have examined there has been more or less atrophy and decrease in weight, and in some cases it has reached an extreme degree, leaving thin convolutions, and wide, shallow, gaping sulci. The frontal segment invariably suffers most, and the cerebellum and the mesencephalon participate in the wasting. The following table shows the average weight of the various parts of the brain in the cases I have examined:—

	Males. Grammes.	Females. Grammes.
Encephalon	1,329·8	1,213·5
Right hemisphere	575	519·3
Ditto with membranes removed ...	528·4	482·2
Left hemisphere	571·4	514·7
Cerebellum	137·2	126·9
Pons and medulla oblongata...	29	26

The surface of the cerebrum is generally firm, sometimes slightly puckered, and of a dirty cream colour. On section the cortex is shallow, dark in colour, and its striation is indistinct. The white matter is atrophied in proportion to the surface atrophy and is of firm consistence. Often one observes, scattered throughout it, small sclerosed patches of a brown colour, which are remnants of resolved perivascular hæmorrhage. The condition first described by Durand-Fardel,³ afterwards by Bizzozero⁴ and called by the French *état criblé*, which consists of a cribriform appearance of the brain substance produced by dilatation of many perivascular spaces, is common in the atheromatous. The perivascular spaces of the lenticulo striate and lenticulo optic arteries and of their branches, of the artery to the corpus dentatum cerebelli and of the arteries supplying the upper part of the pons Varolii are particularly liable to dilatation, and further minute hæmorrhages from the diseased vessels frequently occur into these spaces. These do not completely resolve, but leave a number of irregular-walled cysts with brownish, watery contents. The outer segment of the lenticular nucleus suffers in this manner, *par excellence*, the two remaining segments of the lenticular nucleus are next most frequently involved, then comes the nucleus caudatus, and

finally the optic thalamus. In one of my cases the latter structure was converted into a pulpy mass, and must have almost completely lost its function through this change. This alteration is much more common in men than in women, and is, I think, almost peculiar to the senile condition. In general paralysis, where atrophy to an extreme extent prevails, I have not yet seen it. The ventricles of the senile brain are always greatly dilated and contain an excess of fluid. This general condition, consisting of ventricular dilatation and universal increase of cephalo-rachidian fluid with concomitant atrophy of the nervous tissues, has received at the hands of the morbid anatomist the highly expressive name of "hydrocephalus ex vacuo." The ventricular ependyma is generally thick, but not often granular. The choroid plexuses are commonly vesicular and the pineal gland sandy. The pituitary body is frequently cupped and atrophied in its upper half, and lastly I need only mention that the atheromatous condition of the senile brain frequently induces thromboses and embolisms and consequent encephalomalacia. Softening from venous stasis such as that which is so common in epileptics dying in "status" is rare or unknown in the senile condition.

Changes in the Encephalon (Microscopical).—A microscopical section of the cortex of the brain of an aged insane person shows the pia-arachnoid thick and cellular. As it were, clinging to the surface of the cortex are numbers of so-called corpora amylacea; these bodies often lie four or five deep on the convexity of the hemispheres, but the place where I have always found them in greatest abundance is on the external medullary lamina of the cornu ammonis. The first cell layer of the cortex cerebri is usually diminished in depth, its surface is generally fibrillated, and occasionally the fibrillation is as close meshed and dense as it is in some cases of general paralysis. As Dr. Beyer Lewis⁵ has shown, the presence of a number of spider cells in the first layer forms an almost characteristic feature of senile insanity. They chiefly occupy the outer half of that layer, and are particularly numerous in the sulcal cortex; as a rule, they possess bodies of small size, and their tangential rays of processes generally appear faint when stained with aniline dyes, and cannot be traced far into the surrounding neuroglia, and the meshwork formed by the interlacement of their fibrils with one another is not coarse and dense. They do not appear to be particularly related to the blood

vessels in point of position, and another remarkable point concerning them—one which I have over and over again remarked—is that granules of golden pigment are often seen, either, as it were, entangled in their processes, or replacing a portion of the protoplasm composing their bodies. It is thus clear that morphologically these spider cells differ markedly from the large, succulent, deeply-stained cells, which possess large vascular processes, and form a coarse reticulum in the first layer in dementia paralytica. Small spider cells are often seen accompanying the blood vessels in the white matter, but they never form a prominent feature. Evidence of widespread nerve-cell degeneration is hardly ever absent in these cases; cells in all stages of breakdown are observable. An increase of pericellular nuclei and of the nuclei of the neuroglia is also common. The most striking and constant change of senile insanity, however, is pigmentary or fuscous degeneration, which affects all nerve cells of any size; some large pyramidal cells and ganglial cells of the paracentral cortex may be seen wherein the change has advanced so far that the protoplasm is almost entirely replaced by pigment. Further, aggregations of pigment may be seen embedded in the matrix; these indicate the position of a former nerve cell, and illustrate the final stage in the process. With regard to the blood vessels of the cerebral cortex, their component parts are never very distinct, and their perivascular spaces are most commonly dilated. This perivascular dilatation gives rise, as before stated, to the macroscopic change which has received the name of *état criblé*. With the aid of the microscope one can see lying in the dilated space small quantities of clumpy pigment, some leucocytes and *débris*, and the outer wall of the space is somewhat fibrillated, while small spider cells can be seen occupying the surrounding matrix. Examining a microscopical section of one of the basal nuclei which is disorganized by perivascular dilatation in the manner which I have described, one notices that one has to deal not only with a perivascular dilatation pure and simple, but that an actual irregular-shaped small cystic cavity has formed round the vessel and occasioned the destruction of a considerable amount of nervous tissue. This cavity contains fibro-cellular material, blood crystals, leucocytes, compound granule cells, and *débris*. The diseased blood vessel can be seen lying near its centre. Its wall is fibrillated and the surrounding tissues are dis-

coloured brown with hæmatoidin crystals, and lodge a number of distinct spider cells. What actually occurs primarily to set up this condition is this—a minute rupture of the vessel wall takes place, through this blood is effused into and further distends the already dilated perivascular space, and this effusion mainly by pressure destroys the immediately surrounding tissues. Occasionally, but not usually, the extravasated blood passes through the perivascular wall into the surrounding tissues. It is rare for one to obtain a section which will exactly explain the pathology of this condition, but I have several in my possession made from different parts of the brain which admirably demonstrate the change in its most recent state. In these one is able to make out the perivascular space distended by a forming blood clot, in the centre of which is the artery with altered walls. The distance which the blood travels along the perivascular space above and below the site of the rupture is not great.

Changes in the Spinal Cord.—As in the brain, so in the spinal cord, there are certain naked-eye changes which more or less mark the senile condition. In the first place, one almost invariably notices a decrease in the diameter of the cord and a diminution in its weight. The pia-arachnoid is thicker and more easily detached than in adult life. In several cases I have noted the presence of osseous deposits forming platelets in the arachnoid membrane. In one instance these extended at intervals along the dorsal surface of the arachnoid throughout the length of the cord. Lastly, the spinal fluid is increased in quantity. These are all changes which accompany ordinary senile atrophy.

Microscopically there are also constant general alterations, alterations which are not confined to any particular segment or segments of the cord. In a transverse section stained by the osmium-bichromate method of Marchi one invariably notices disseminated throughout the white matter degenerating nerve fibres which give the black reaction with osmic acid. A few degenerating fibres are also visible in the nerve roots, both anterior and posterior, and it is also usual for one to discover patches in these roots which are quite devoid of healthy nerve fibres. Excessive pigmentation of the ganglial cells situated in the anterior and posterior cornua, and in the vesicular columns of Clarke, forms a striking and almost constant feature. Granular alterations of the protoplasm, vacuolation, atrophy, and such-like

destructive degenerations of these cells are not so frequent as one might be led to expect. In the next place, in the cord of the senile insane patients which I have examined I have generally discovered a general connective tissue hyperplasia, a hyperplasia which taken altogether has resulted in the destruction by compression of a large number of longitudinal fibres. The regions where this connective tissue increase is most noticeable are the lateral-mesial and the posterior columns. In one case the hyperplasia was so marked in the latter columns that a condition was presented which resembled that seen in an early case of *tabes dorsalis*. The state of the blood vessels, again, is striking. Throughout the white matter, but particularly in the above-mentioned partially sclerosed regions, their walls are greatly thickened. The adventitia is especially hypertrophied, and in many instances from it prolongations pass among the surrounding nerve tubules and their joint neighbouring strands of connective tissue. This invasion of the nerve fibres by the adventitia of the vessels occasions further destruction of the former. In the grey matter the vessel walls are also thickened and their perivascular spaces dilated. Lastly, I may mention the occurrence of an abundance of corpora amylacea, particularly in the anterior fissure, and of a hypertrophy of the ependyma of the central canal.

Changes in the Peripheral Nerves.—On examining any peripheral nerve in one of these cases, most pronounced and striking alterations are to be demonstrated. First, in a transverse section stained by the method of Marchi some few fibres are visible undergoing acute parenchymatous degeneration, but the most striking feature is the great reduction in number of the large healthy nerve cylinders. As a rule the falling out of these fibres is proportionately equal in the various bundles which compose the nerve track, but it does occasionally happen that one or more particular bundles suffer more in this respect than others. The spaces which remain from whence these fibres have disappeared are occupied by fibro-cellular material and *débris* plus—and this most interesting feature I have observed over and over again—collections of minute nerve fibres, which, while possessing a distinct axis-cylinder, have only a thin and delicate medullated sheath of Schwann. In addition to these changes, which are all part of a parenchymatous degeneration of the nerve fibre, interstitial alterations are not uncommon; the perineurium and epineurium may be greatly

thickened, and in some cases I have found it infiltrated with fat cells. Again, the changes presented by the blood vessels in the nerve trunk are most interesting, one may almost say that it is the rule for these to be thickened. The thickening takes place principally in the adventitia, but in some cases such a proliferation of the intima occurs as almost to occlude the lumen of the vessel. The small vessels which run along with the nerve fibres within the perineurium often suffer to an extreme degree; they become enormously thickened, encroach upon the adjoining nerve tubules, and occasion by pressure destruction of a number of these tubules, and eventually their lumen becoming obliterated they resolve into a solid, circular, fibro-cellular or homogeneous mass. I have examined sensory and motor branches of many nerves, and have found like changes in both. Those nerves which are situated most peripherally appear most diseased, thus the peroneal is generally more involved than the sciatic. Previous writers have pointed out that in other neuritic conditions, such as alcoholic polyneuritis, diphtheria and general paralysis of the insane, the vagi nerves seem to affect a certain predisposition to disease. This would seem to hold also in the case of the senile neuritis which I am describing, as I have found extensive disease of these nerves in several cases.

Remarks on the Pathology of these Changes.—Since the publication of Deiter's Monograph describing the cell which now bears his name there has been an inordinate amount of speculation concerning the nature of these bodies, and some recent publications show that not even yet are neurologists in agreement in regard to their mode of development, function, and exact significance. The existence of this cell in great numbers in the brain of the senile insane is of great interest from more than one point of view. I have mentioned that in some instances they appear so abundantly that a superficial observer, judging by the spider cells alone, might mistake a section of such a brain for one from a general paralytic's cortex, but, as I have pointed out, there are certain morphological features which serve to distinguish the typical senile spider cell from that of general paralysis, and also from that of alcoholic insanity; these are, to recapitulate, that the spider cell in senility is almost invariably of small size, both as regards its body and its processes. In senility it is not the rule to find spider cells with large nuclei, a distinct granular investing protoplasm

and a large tubular vascular process which are so characteristic of general paralysis, and in general paralysis the small pigmented cells are uncommon. I imagine that these cells were originally hypertrophied secondary or mesodermal glia cells, and, judging by their reduced size and the tenuity of their processes, it is presumable that they are falling into disuse, and have lost that phagocytic or scavenger property which is attributed to them, and that the pigment granules deposited in and around them have not been attracted there in order that they may be removed, but are simply a result of a degenerative metamorphosis, exactly comparable to the hyper-pigmentation of nerve cells which is so characteristic of senescence. This view receives support from the fact that in some early senile cases spider cells of large size and in abundance have been discovered in the cortex (Bevan Lewis). It is probable that I have failed to find such cells because all my cases have died in advanced senility. Though the accumulation of fat globules around spider cells has been described in connection with senile insanity, the pigmentary change I allude to seems to have received little attention, and yet it is one of the most constant features. That the pigment is altered fat is possible, as micro-chemistry tells us that fat enters largely into its constitution, a fact which anyone may demonstrate for himself by staining such a cell by the osmic method of Marchi.

In addition to certain anatomical resemblances between the brain of senility and that of general paralysis, it not infrequently occurs that patients of advanced age develop apparently unequivocal signs of general paralysis. My experience of such cases has taught me to be extremely careful before recording general paralysis as the clinical diagnosis. I have been enabled to make a macroscopical and microscopical examination of the nervous system of several such cases in which general paralysis has been confidently diagnosed, and in all I have been able to certainly assure myself that general paralysis was not the cause of death. Though opacity and thickening of the membranes, increase of cerebro-spinal fluid, extreme wasting, and other macroscopic changes—changes, however, which are common to the two diseases—were present, yet the microscopical features were absolutely distinctive, and in addition certain alterations were evident, such as marked endarteritis chronica deformans, embolic, and thrombotic softenings, perivascular hæmorrhages, with destruction of the surrounding tissue in

the basal nuclei, and in the pons Varolii, which are all common changes in morbid senescence, but distinctly rare in general paralysis. It must not be gathered from the foregoing that it is my opinion that general paralysis never occurs in senescence; all I would point out is that I think it is rare, and that one cannot judge by clinical data alone. It is also clear that these manifold senile alterations can produce symptoms which to a large extent resemble those of general paralysis, but it is impossible for me to conceive of cases such as Wille⁶ suggests, in which there is a complication of both diseases.

Hæmorrhages into the perivascular spaces, which I have described as occurring, especially into the basal ganglia and bulb, owe their origin to a loss of the natural support afforded by the surrounding tissues through wide-spread atrophy of these tissues, the integrity of the vessels depending upon a more or less close apposition of the investing wall. They account for more clinical phenomena and pathological changes than one would imagine. The bulbar hæmorrhages, doubtless, explain the deglutitory and articulatory troubles seen in so many cases. The functions and connections of the olivary bodies must often be destroyed, as in three of my cases in which the corpus dentatum cerebelli was sclerosed by such hæmorrhagic foci I found the olivary bodies atrophied. In addition to causing absorption of a number of nerve cells and fibres in the cerebral basal ganglia, the internal capsule may suffer from the change, and I have sections of the spinal cord in which a large number of fibres in the pyramidal tracts are seen degenerating in consequence of such focal lesions; in these cases a paraplegic condition existed clinically, comparable to that which Dr. Gowers⁷ describes under the heading of "Simple senile paraplegia," and it has occurred to me that other similar cases can be explained on such an anatomical basis.

Lastly, the neuro-vascular changes, which are so constant in morbid senescence, are of considerable importance, as to these changes must be attributed much of the wasting and paresis, as well as the vaso-motor and trophic disease incident to the senile epoch, and so common in the aged insane. In paralysis agitans, as Ketscher⁸ and Redlich⁹ have recently pointed out, many of the senile changes which I have described are constantly present, and Ketscher, in summarizing his observations, remarks that the morbid anatomy of paralysis agitans and senility are practically identical. But

Redlich criticizes Ketscher's statement, and holds that in paralysis agitans a distinctly morbid exaggeration of the senile change prevails, and he further lays particular stress on the changes which the blood vessels of the spinal cord undergo, viz., the general thickening of their coats and special proliferation of the adventitia. In many of my cases, however, I have observed vascular changes in the cord which seem to be identical almost with those which Redlich describes, and I, therefore, cannot agree with that author in thinking that they are peculiar to and characteristic of paralysis agitans. The presence of the fine longitudinal nerve fibres running in the diseased nerve bundles, which I have alluded to, next calls for further remark. Exactly similar tubules I have observed in diseased nerves from cases of general paralysis, and I have mentioned in a previous communication that I looked upon them as part of a regenerative process, though of a reversionary type. Popoff¹⁰ has recently endeavoured to show that the nerve fibrils which are to be observed in the plaques which form in the spinal cord in multiple sclerosis, and which Charcot and others taught were axis-cylinders bereft of their medullary envelopes, are also really regenerating nerve tubules. Charcot promulgated the theory that the "intentional tremors" of multiple sclerosis were dependent upon these nerve fibrils, and if Popoff is right in supposing them to be regenerating nerve tubules, it is not unlikely that the presence of numbers of similar minute fibrils in the spinal cord and peripheric nerves of cases of senility and general paralysis may account for much of the tremor seen in those conditions. In conclusion I would mention that I regret having hitherto neglected my opportunities for the thorough clinical examination of the peripheral nerves in these cases, but that marked abnormal electrical reactions and sensory anomalies are to be observed is almost certain. It is also more than likely that many cases of senile multiple neuritis, such as that described by Oppenheim,¹¹ pass unnoticed.

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A Case of Porencephaly. By CONOLLY NORMAN, F.R.C.P.I., Medical Superintendent (Dublin District), Richmond Asylum, and ALEC FRASER, M.B., C.M., Professor of Anatomy, Royal College of Surgeons in Ireland.

A. Clinical, by Dr. Conolly Norman.

N. P. was admitted to the Dublin District Asylum in February, 1886. Nothing was known of his antecedents, nor was there any history whatever save that he had been guilty of an unnatural offence, had been committed to prison, and had been found to be insane. He would or could give no information about himself.

When I first saw him (September, 1886) he seemed about his stated age, 42. He was of low stature, about 5ft. 6in. His face was small and of a somewhat negritto type, with low-bridged nose, wide nostrils, and rather prognathous mouth. Hair and skin extremely dark for a native of these climes, but his hair, which grew low down on a somewhat receding forehead, was straight and even. Little beard. No unusual development of hair on the trunk or extremities. He exhibited partial hemiplegia affecting the right arm and leg. These limbs were altogether smaller than the left, both bones and muscles. The tibialis anticus and the peronei were specially wasted and talipes equino-varus existed. The knee was slightly flexed and its range of movement was limited. Similarly with the hip-joint. The fingers of the right hand could not be fully extended, and the wrist was permanently flexed with very trifling range of movement. The elbow and shoulder joints were partially stiffened in the flexed and adducted posture, with small range of movement. The facial muscles were not paralyzed. The tongue was straight. General sensibility did not seem to be impaired on the affected side.

I regret to say that having on superficial examination formed the careless diagnosis of "infantile paralysis," I did not correct this opinion during the patient's life, and lost consequently a valuable opportunity of clinical observation. The condition of the special senses was not investigated. No symptom was observed, however, pointing to any lesion of special sensibility. No oculomotor abnormality was observed. The voice was somewhat bleating in tone. The

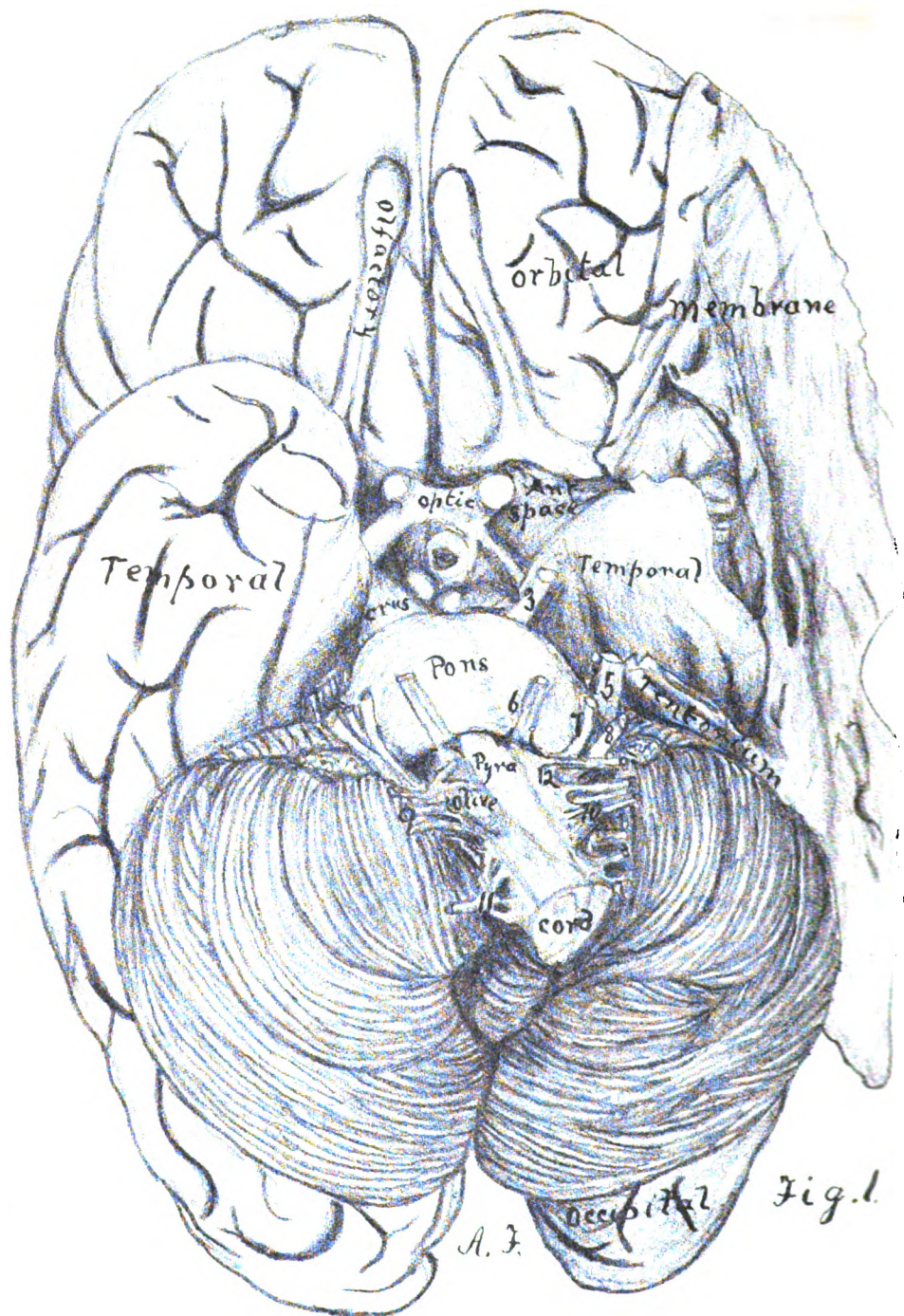
vocabulary was not in any way specially limited. The patient could read print.

The general intelligence was low, but he was not an idiot. He entertained delusions of the paranoiac type, fixed persecutory delusions, chiefly to the effect that people in the gaol had put beasts in his inside to torture him; that his inside (chest) was full of gnawing beasts and so forth. He complained bitterly of this treatment, and said that the asylum authorities were conspiring with the prison warders to persecute him. No hallucinations were noted, unless the gnawing sensations were of this nature, but I think it is more probable that they were real feelings misinterpreted, which had their physical basis in the morbid processes of incipient phthisis.

The patient walked without a stick or other aid, and was able to feed himself with his right hand. I mention this to show, for want of more accurate data, how much voluntary power over the extremities remained. No particular change took place in his mental or nervous state. He lost flesh gradually, and was found to be suffering from consumption. To the last he appealed to his wasting and his pains as confirmation of his belief that there were beasts in his inside gnawing his vitals and destroying him. He died on May 22nd, 1889.

Autopsy.—It was unfortunately not possible to perform a *post-mortem* examination till nearly 30 hours after death. The body was emaciated. Both plural cavities were obliterated by adhesions, and both lungs contained numerous cavities. Otherwise the thoracic and abdominal viscera were healthy.

The left parietal eminence was distinctly more prominent than the right. The contour of the skull presented no other abnormality. The calvarium, generally, was rather thick and dense, the diploe being in parts almost absent. Dura not abnormally adherent to the bone. On removing the calvarium the dura was unduly prominent in the left parietal region, and on palpation seemed to cover a large collection of fluid in this region. On puncture, sixteen ounces of perfectly clear fluid escaped. A large cavity was seen to exist in the situation of the sylvian fissure and insula. From the edges of this cavity, which was everywhere perfectly rounded, a stout membrane ran outwards, confluent for from an inch to two inches round the upper margin of the cavity with the pia mater, there parting company with the pia and running out in a loose fold to the dura, with which it became continuous. Posteriorly this membrane was continuous with the tentorium. Various strong bands of membrane ran across the large opening, one of which, lying antero-posteriorly, expanded at its posterior end so as to form a sort of loose, valve-like covering for the posterior part of the opening. The most convex portion of the rounded margin of the opening showed a small but distinct ridge, which seemed to mark the termination of the pia. Internally thereto the ventricular cavity presented the appearance of being lined with ependyma in the usual way.



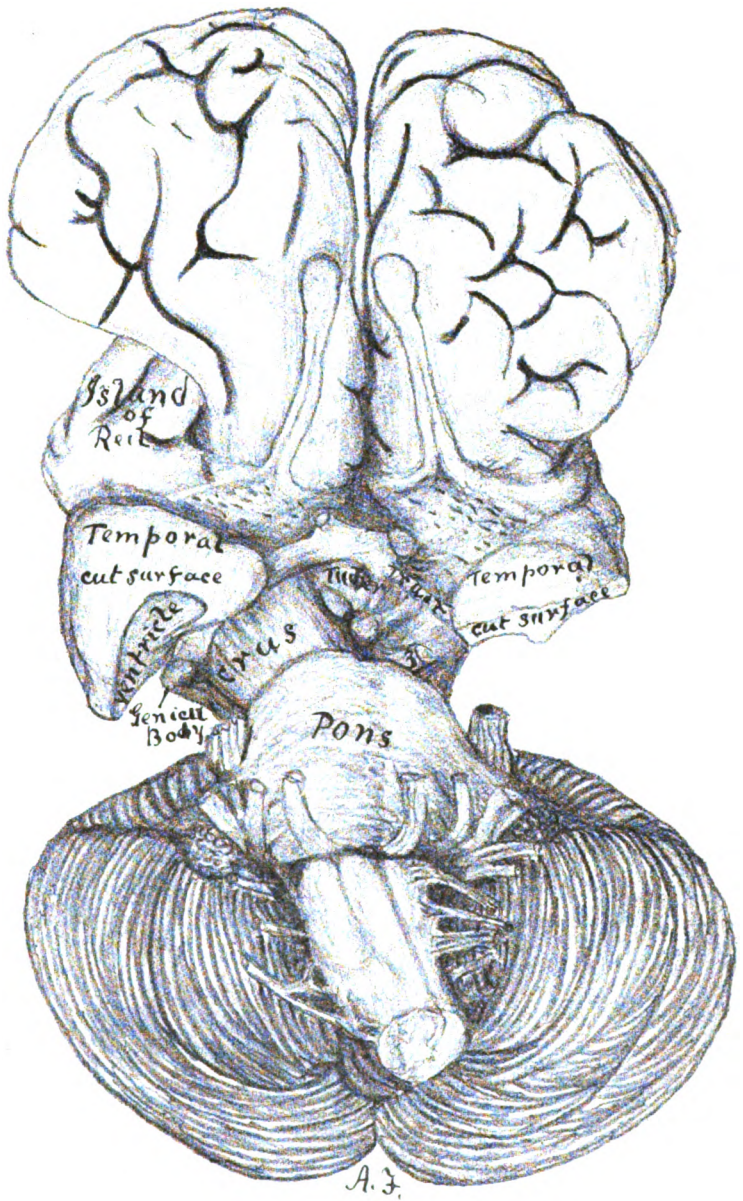
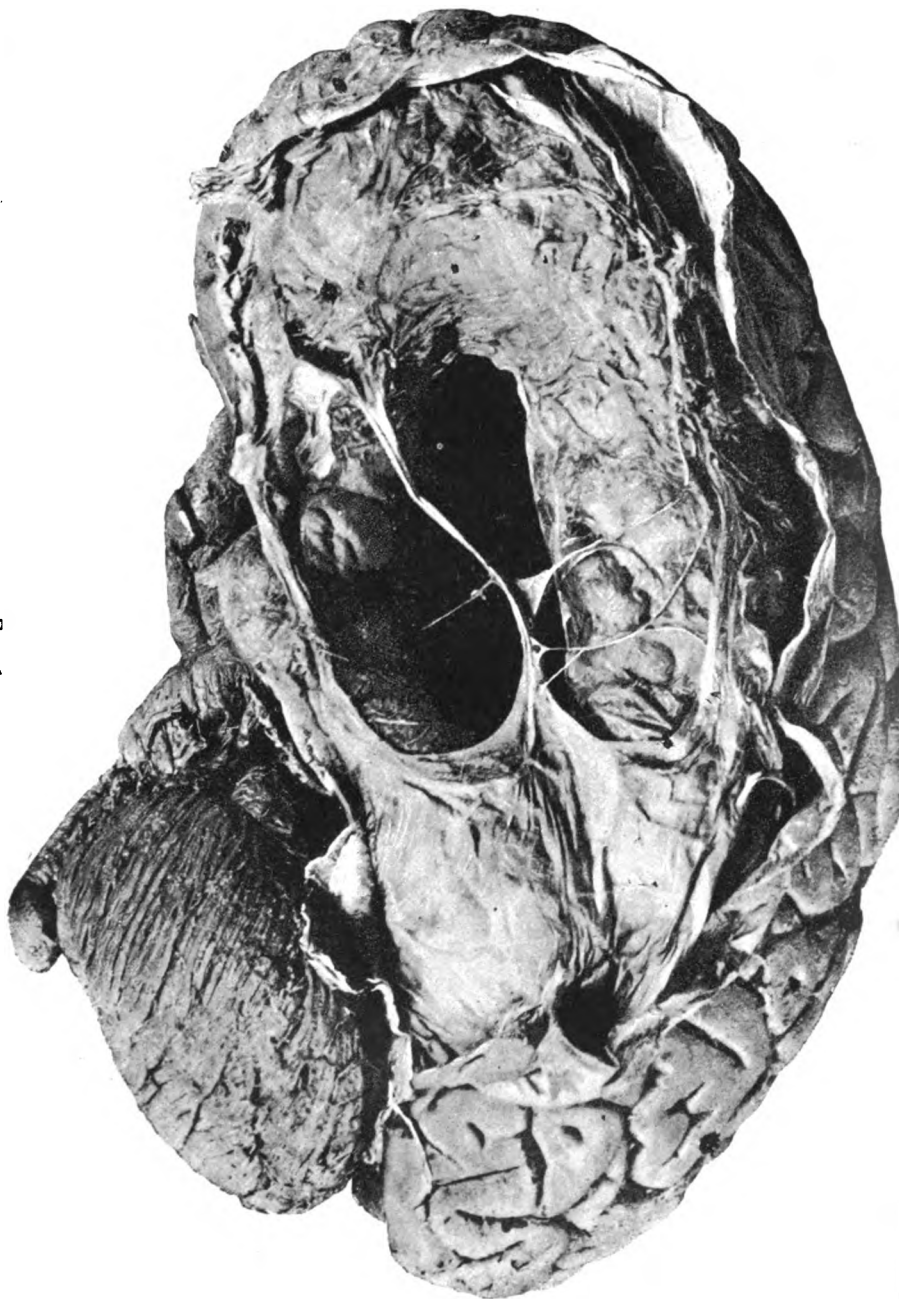


Fig 2

A. Fraser delt



FIG. 1.



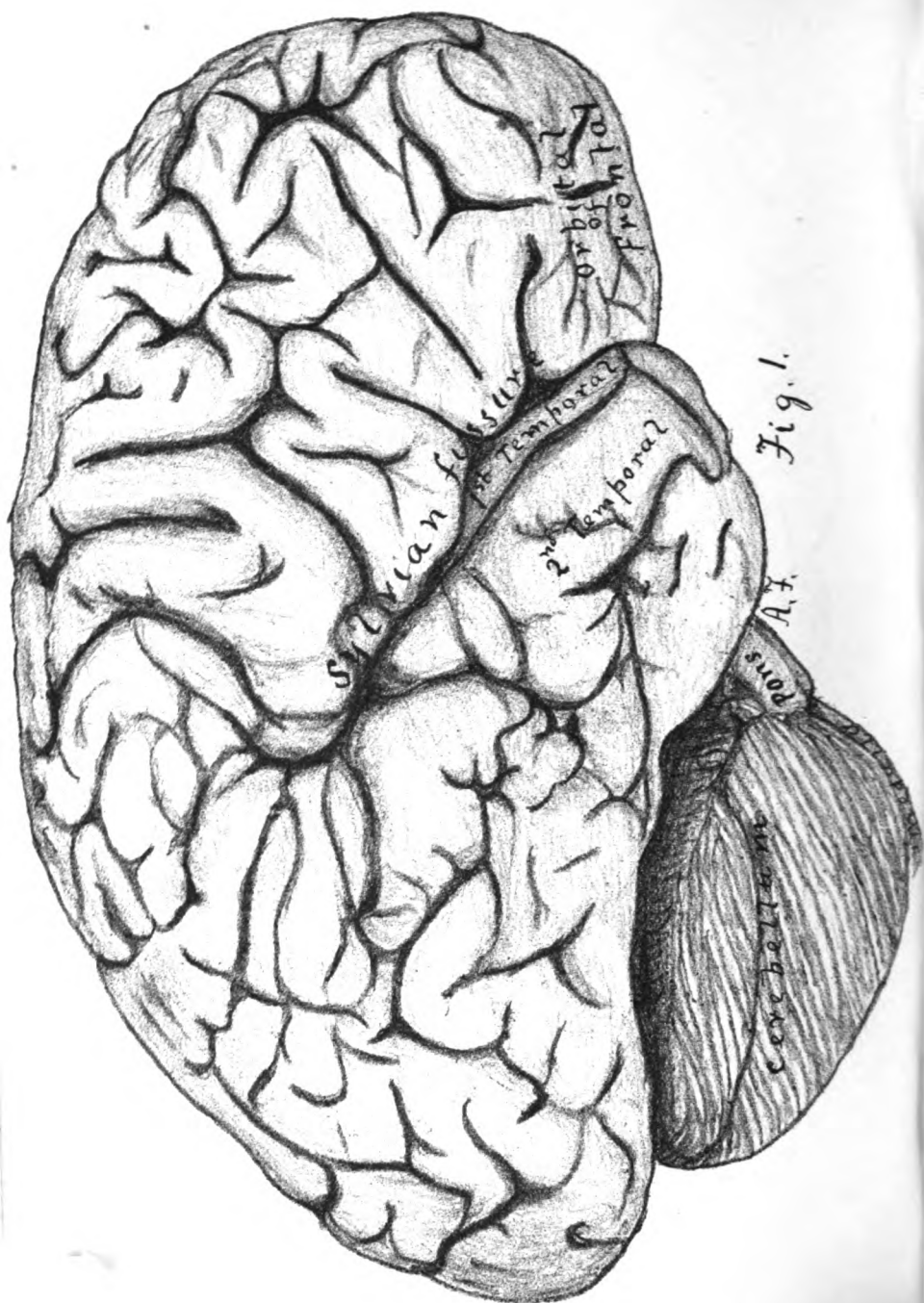
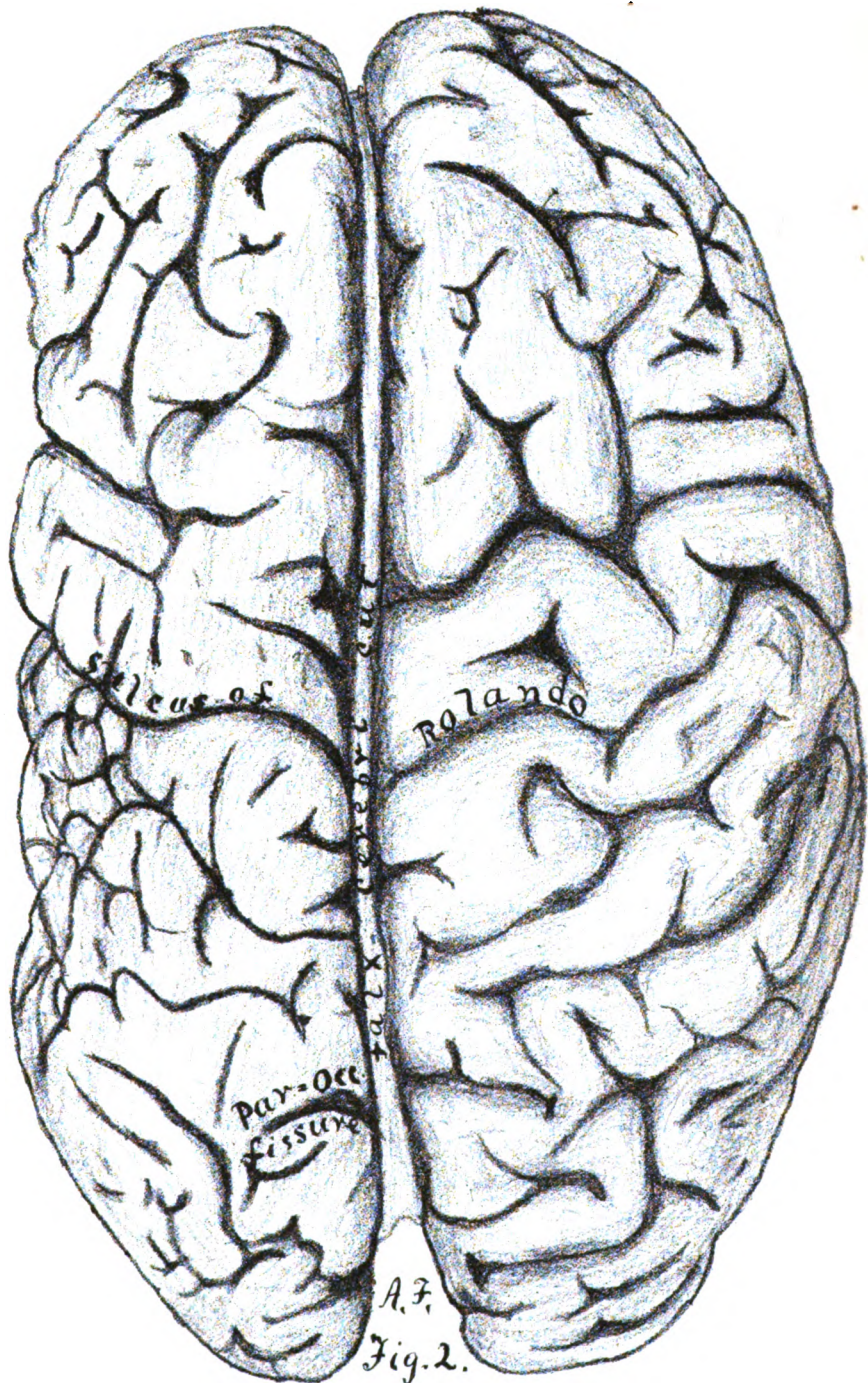


Fig. 1.



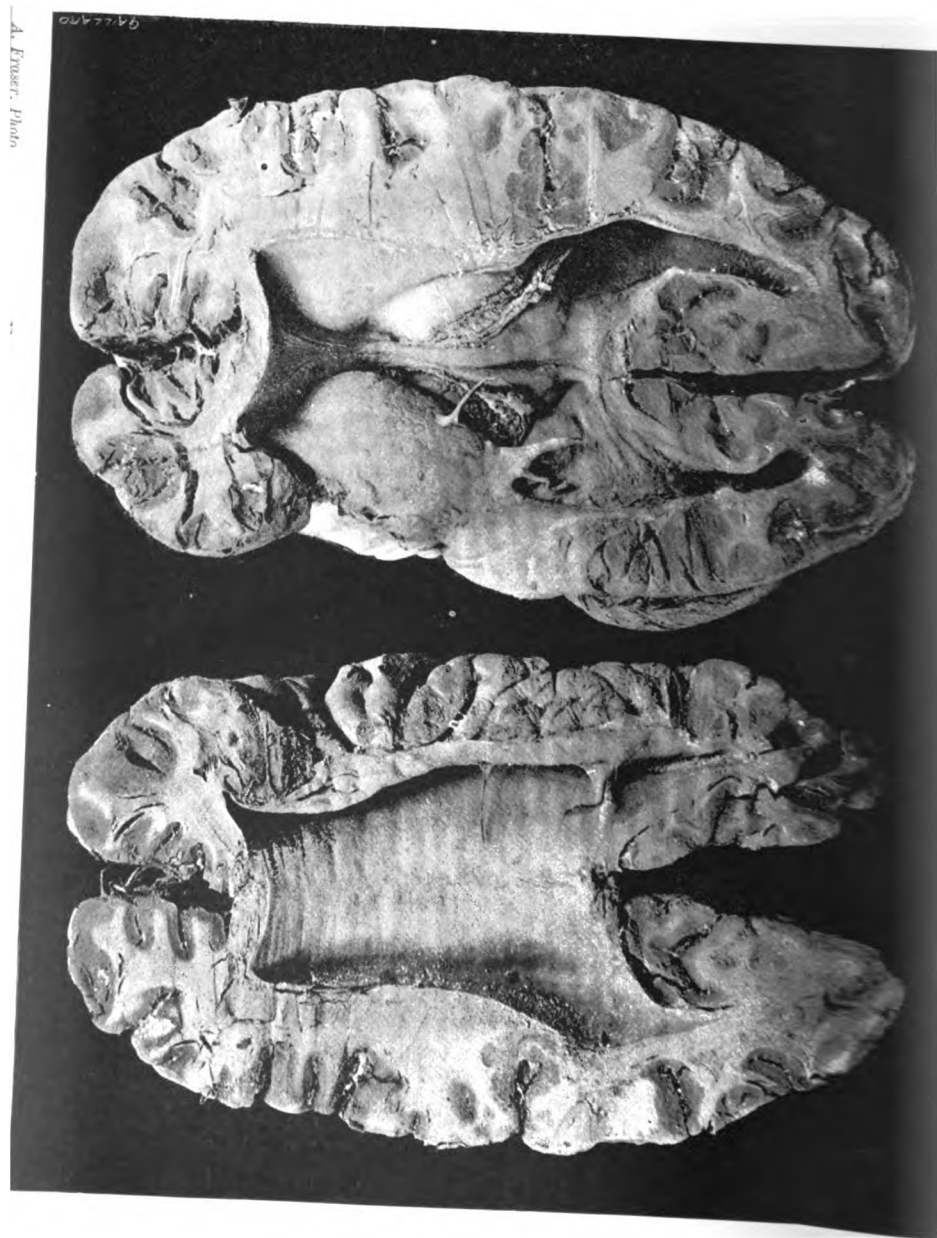
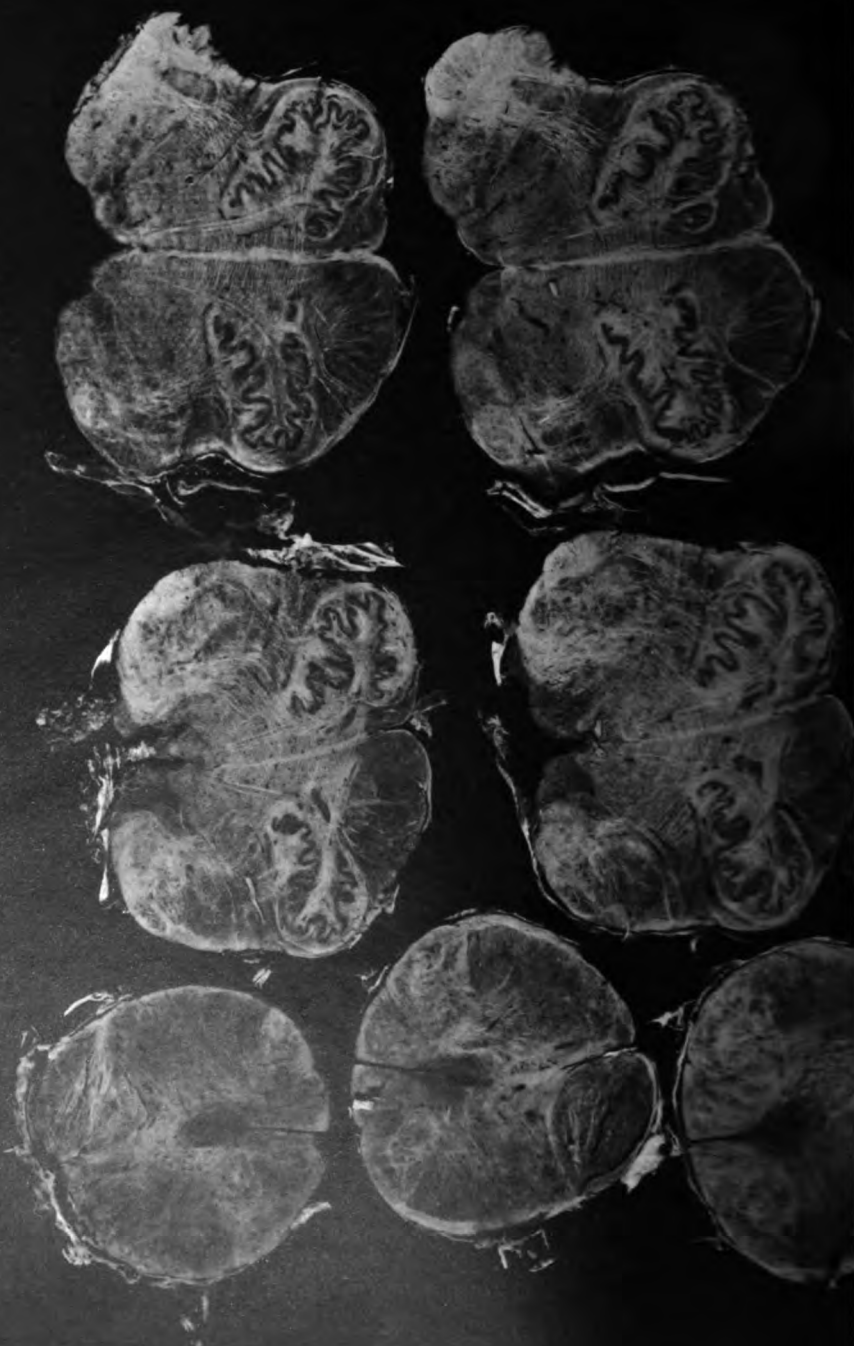
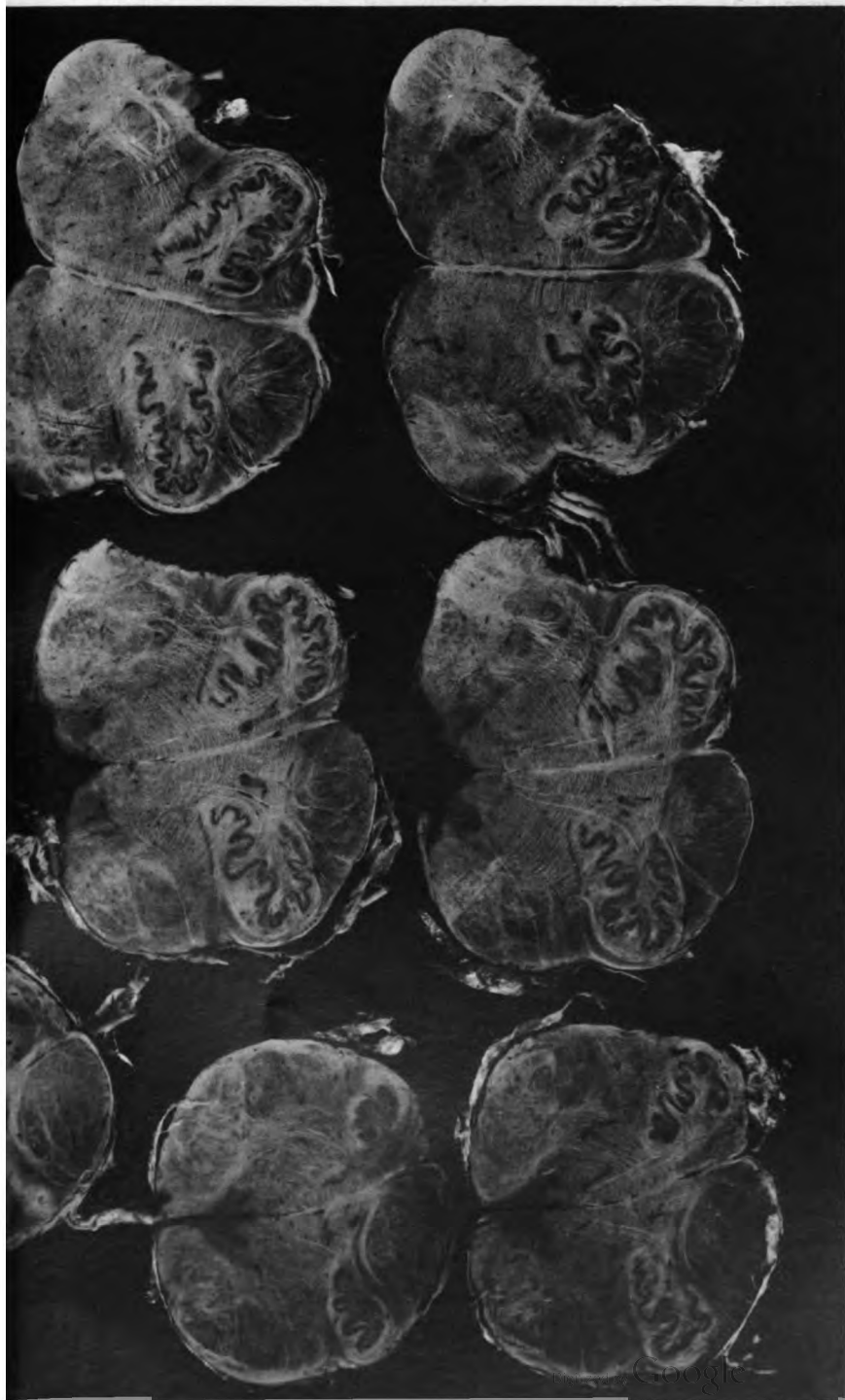




FIG 1.





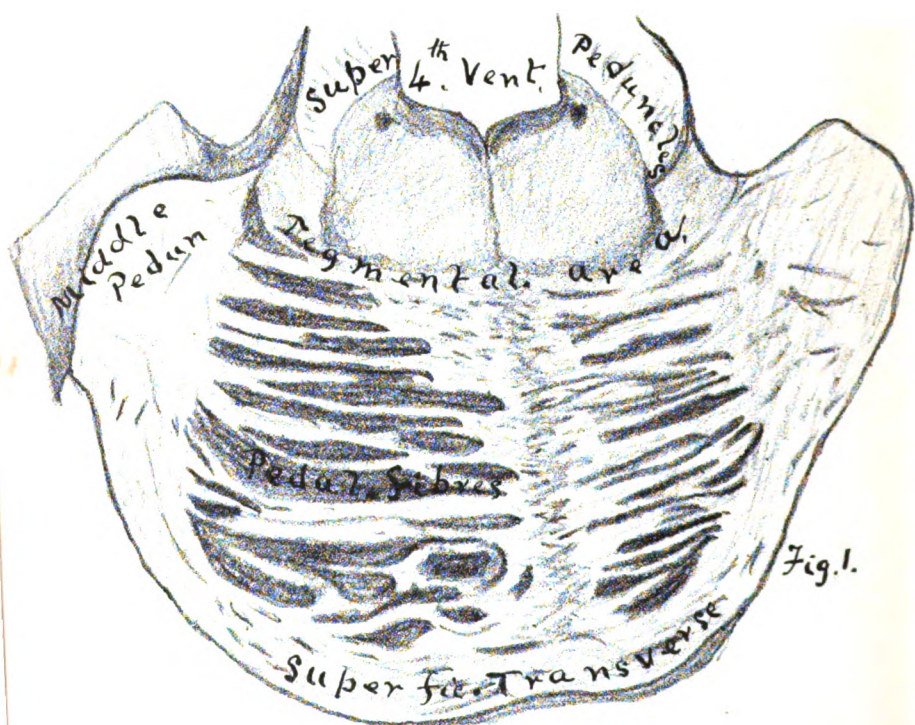
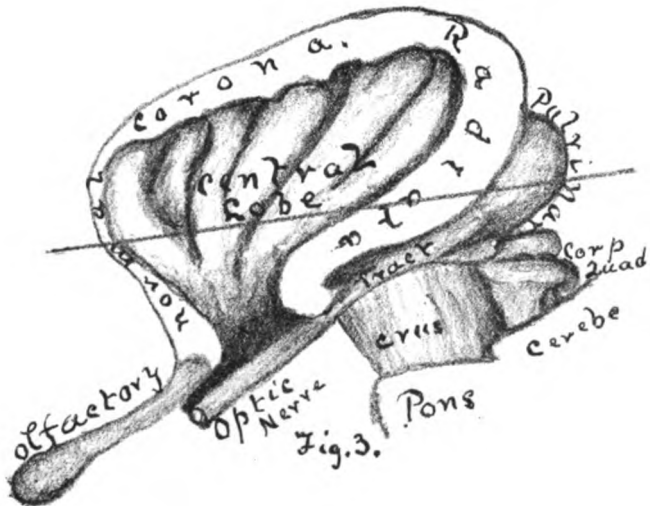
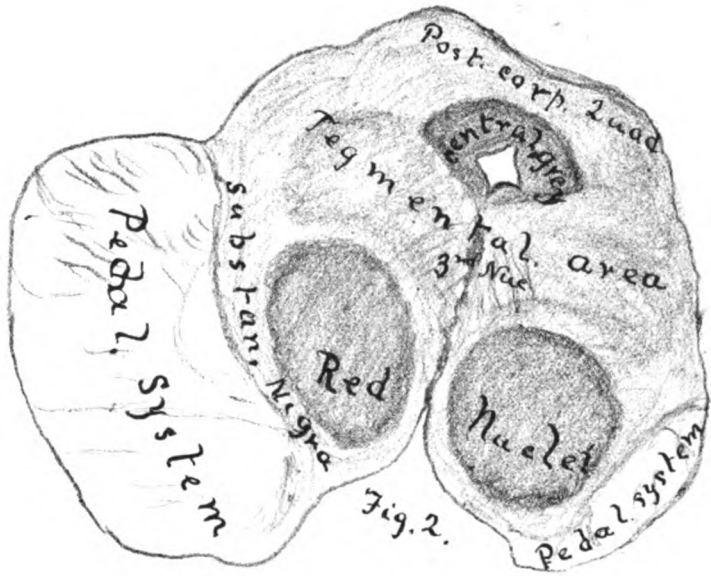


Fig. 1.



B. Anatomical, by Alec. Fraser, Professor of Anatomy, Royal College of Surgeons in Ireland.

The brain, which has been the subject of this study, was given to me by my friend Dr. Norman some five years ago.

It was a great favour to me, as during the last ten years all the spare time at my disposal has been occupied in tracing the developmental history and adult structure of the central nervous system, the most wonderful, the most difficult, and the most attractive of all the systems. I felt the more pleased with this specimen because, so far as I know, no case of an exactly similar character has been described in English literature, and also because the specimen proved itself to be one of the most perfect examples of the true porencephalic condition on record.

The little that was known of the individual from whom it was taken lends also an additional interest. He had, presumably, lived the greater part of his life under the ordinary conditions of existence, although latterly it became necessary to place him under restraint, yet he could use the affected leg for purposes of progression without artificial aid of any kind, also the affected arm in various ways, showing the great compensatory power which nature possesses in the complete absence of the important portions of the nervous system, which it is the purpose of this paper to describe.

The brain had been hardened in Müller's fluid, somewhat over-hardened, and was in the condition represented in the majority of the plates. I did not obtain the spinal cord. I photographed the specimen, natural size—first, its various external aspects, then the several dissections which were found necessary to lay bare everything that can be learned from a simple macroscopic examination, and finally I cut what had been left (Plate IV., Fig. 1) in the transverse vertical direction, and serially from the caudal end of the medulla up through the pons, mid-brain, thalamic brain, to the cephalic end of the striate portion of the hemisphere brain, after the manner illustrated in Plate V. and in two of the Figs. in Plate VI.

The remarks which are to follow will refer almost solely to the naked eye conditions of this most interesting experiment on the part of nature.

I. Description of the Encephalon.—The illustrations for this have been so arranged that a careful examination of them

will reveal, to the reader, the defects and alterations which have taken place in the organ far better, in my opinion, than any description of mine, and this would be all the more true could I have reproduced the negatives in my possession in a manner that would do them justice.

1. *Membranous Sac*.—As I was not present at the post-mortem examination I cannot speak with certainty as to the formation of it, but Dr. Norman's description, and a glance at Plate II., Fig. 1, and Plate I., Fig. 1, will place readers in the same position to judge as myself. In these Figs. its cephalic, dorsal, and caudal boundaries of attachment to the cranial dura are well seen. Ventrally it is attached to the tentorium. Its cavity communicates freely with the lateral ventricles here forming one large cavity, and with the ventral sub-arachnoid spaces. Whether its walls are formed by altered pia-arachnoid plus the remains of the affected hemisphere wall, as Schattenberg claims, or whether the pia is excluded, as Kundrat would have us believe, is a point I could not determine; at any rate, bands of the membrane can be observed passing across the porencephalic aperture (Plate II., Fig. 1), drawing the caudal extremity towards the cephalic one, forming a sort of valve for the caudal portion of the aperture, thus altering the relations, as regards size, of the membranous and the real porencephalic aperture (Plate II., Fig. 2). The boundary limits between the membrane forming the walls of the sac and the thickened ependyma lining of the ventricular cavity are seen in Plate IV., Figs. 2 and 3. I shall refer to these more minutely further on.

Through this aperture the cerebro-spinal fluid passed freely into the ventral sub-arachnoid spaces, it bearing the same relation to these as the foramen of Majendie does to the large space situated dorsally to the caudal portions of the cerebellum and medulla.

2. *Lateral View* (Plate II., Fig. 2).—The true extent of the porencephalic aperture is seen here after removal of the membrane. It is situated in the region of the insula and the fissure of Sylvius, a large portion of the lobes entering into the formation of the boundaries of the fissure, viz., portions of the orbital and third inferior frontal, the ventral third of the two central, a great portion of the supra-marginal, the whole of the first and retro-insular convolutions, as well as a great portion of the second temporal, more especially its cephalic end, have disappeared.

The ventral half of the posterior central and what is left of the supra-marginal area are in a microgyrous condition. The sulci of the frontal, posterior portion of the parietal, the occipital, and what remains of the temporal lobe are arranged radially round the margins of the aperture. The orbito-frontal and fronto-parietal false opercula limit the aperture cephalad and dorsally; a false operculum is also formed by the posterior third of the remains of the temporal lobe which limits the aperture ventrally. The line seen on the anterior two-thirds of this lobe marks the junction of the ventricular ependyma with both the cortical grey and the membranous wall of the sac, it runs in the Fig. on to a portion of the membranous wall, left behind in the dissection. Internal to this line is seen the outline of the hippocampus major shining through its thin medullary roof, formed by what remains of the temporal portion of the corona-radiata. The entire central lobe, except its ventral portion, where it is continuous with the anterior perforated space, has also disappeared, and corresponding to this the masses of grey matter forming part of the corpus striatum are much diminished. These masses, four in number, the caudate and lenticular nuclei, the claustrum and the amygdaloid nucleus, although they are separated for descriptive purposes, form one grey mass which is divided into the above-named constituents by white fibres passing through it, the four of them meeting at and being continuous with the grey of the anterior perforated space. The remains of these and the insula can be seen on this view lying between the cephalad end of the temporal lobe and the false orbito-frontal operculum.

For convenience, instead of passing to the ventral view, I shall deal next with the

3. *Ventricular View* (Plate IV., Figs. 2 and 3).—This view was made by passing the knife in at the porencephalic aperture to the dorsal surface of the caudate part of the healthy corpus striatum, passing the knife through, at this level, the junction formed by the meeting of the coronal with the callosal fibres, then horizontally cephalad through the genu of the callosum and through the frontal lobes, then horizontally also in the caudal direction, through the splenial end of the callosum and through the occipital lobes, thus laying bare the entire ventricular cavity, except its so-called descending horn.

The first thing that strikes the observer is the complete absence of the septum pellucidum, due in this instance,

without doubt, to the free passage of the cerebro-spinal fluid through the aperture to the ventral sub-arachnoid spaces. However, it is no unfrequent occurrence for the septum to be absent in the normal developing brain (see my diagrams of the foetal human brain in Vol. xii. of the "Trans. Roy. Acad. of Med. in Ireland"), and perforations in it are of frequent occurrence in the adult brain, thus throwing the adjacent ventricles into free communication otherwise than by the foramina of Munro. The next striking matter is the little if any change in the corpus callosum, except, perhaps, at its splenial extremity, a fact of significant meaning in the absence of so much of the true cortex. The amount of coronal fibres absent can also be judged of by comparing the healthy with the affected side. On the latter the frontal extremity of the corona is very evident, sweeping into its corresponding lobe, while the thinned out temporal extremity is seen arching over the so-called descending horn (in reality ascending). The early presence of the intervening parietal and occipital divisions of the corona is made evident by the position of the two atrophied bands of fibres, seen in Fig. 2 at their place of exit from the striatum, and in Fig. 3 at their place of entrance into the affected hemisphere.

The amount of striatum and insula present can also be better judged of than from the lateral view. The body and pillars of the fornix are considerably diminished on the affected side, and corresponding there was a similar diminution in the hippocampus major, as compared with that of the healthy one. The line of junction between the thickened ependyma of the ventricular cavity on the one hand and the membranous wall of the sac and cortical grey on the other can be followed on both Figs.

The other parts to be seen on the floor of the ventricular cavity, the caudate nucleus, the anterior part of the healthy thalamus, and the similar atrophied portion of the adjacent one, the choroid plexuses, the posterior and descending (ascending) horns can all be noted.

4. *Ventral View* (Plate I., Figs. 1 and 2).—From this view, on comparing the affected with the healthy side, can be judged the diminution mainly in the third inferior frontal portion of the orbital surface of the frontal lobe, in the cephalic end of the temporal, and the caudal extremity of the occipital.

The most striking feature in the view is the twisting of

the crura, the pons, the cerebellum, and the medulla to the affected side, due mainly to the absence of the pyramidal tract, also the amount of waste in the insula can be seen in Fig. 2, where the insula of the healthy side has been laid bare for comparison, by the removal of the orbito-frontal operculum.

The central olfactory apparatus, bulb, peduncle, tuber, and so-called roots are normal on both sides.

The optic tract of the affected side is reduced to a mere thread. At the origin of this tract from the commissure a well-marked division runs towards the tuber cinereum. The optic nerve on the healthy side is much reduced in size. The mamillary body of the affected side is drawn caudalwards. The cranial nerves from the third to the twelfth on the affected side were larger than my ordinary experience of them, the third was absent on the healthy side, but it must have been removed by accident before I received the brain, as its nucleus was present, but whether diminished or not I cannot state, in the absence of microscopic examination.

In regard to the cerebellum there was little marked difference between the hemispheres of the two sides, nor in the vermiform processes; if anything, the hemisphere opposite to the porencephalic side was the smaller of the two.

This slight alteration may be correlated with the fact of the presence of the frontal and temporal ends of the coronaradiata. The crus is very much reduced, and the anterior pyramid is absent from the medulla.

5. *Dorsal View* (Plate III., Fig. 2).—The amount of loss in the various lobes (frontal, parietal, occipital, and in part temporal) can be seen from this view at a glance, on comparing these lobes with those of the healthy hemisphere, and, as I have marked the sulcus of Rolando and the parieto-occipital fissure, no difficulty can be experienced in locating the several divisions of these lobes.

The first and second frontal, the upper portions of the two central, and the superior parietal can be observed.

The micro-gyrous condition of the posterior central and the supra-marginal area has been already noted. The various convolutions of the occipital lobe are present, although the lobe generally is much reduced in size in comparison with the healthy one. There was nothing unusual to be noted on the median surface of the hemisphere brain down as far as the dorsal surface of the corpus callosum.

6. *Lateral View of Healthy Hemisphere*, Fig. 1 of the same

Plate, represents this aspect of the hemisphere; Fig. 2 the dorsal one.

I have marked in the leading divisions of the hemisphere in the two Figs., so that little difficulty will be found in recognizing the various main gyri and sulci. The great complexity of those of a secondary and tertiary character on the cortical surface generally will afford an opportunity for the exercise of learned ingenuity in the bestowal of names. This complexity may with safety be stated as compensatory in character.

7. *Dorsal View of Striate Part of Hemisphere Brain and other Divisions of the Encephalon* (Plate IV., Fig. 1).—The most striking feature in the view is the great atrophy which the various divisions of the thalamus on the affected side have undergone. The pulvinar has completely disappeared. The reader can also judge of the great deficiency in the corona-radiata of the affected side. The dissection of the corresponding healthy region shows the normal thickness of the mass of fibres forming the corona, and which pass between the cortex of the insula externally and the grey of the nucleus caudatus internally.

The pineal gland and the ganglia habenulæ were unaffected.

The geniculate bodies of the affected side had disappeared, median as well as lateral.

The anterior and posterior tubercles of the mid-brain on the affected side had suffered in a slight degree, but the former more than the latter; their brachia also in a corresponding manner. The fourth pair of nerves are well seen in the Fig. The dorsal half of the cerebellum from the level of the great horizontal fissure had been removed, thus laying bare the middle and superior peduncles with the lingula on the dorsal surface of the velum.

I have thus far described the external anatomy of the encephalon, noting most of the departures from the ordinary conditions, and now I turn briefly to what can be learned from such simple

8. *Sectional Anatomy*, as is illustrated in Plate V. and in Figs. 1 and 2 of Plate VI. The first Plate represents a nearly continuous series of sections of the medulla, from its caudal to its cephalad end. There were twenty sections on the negative, of which the Plate is a reproduction; but a number of the sections had to be excluded owing to exigencies in regard to the size of Plate suitable for the Journal.

In the sections the most striking feature is the almost complete absence of the pyramidal tract on the affected side—in fact this is the only great structural change to be seen, and in consequence of it a curved condition of the raphe. The inner and outer arciform fibres, the interolivary layer, the sensory crossing, the various masses of grey matter peculiar to the bulb, such as the inferior and accessory olives, the nucleus gracilis, nucleus cuneatus, and Rolandic area of grey matter, all are to be clearly seen, and those of the affected side differ little, if at all, from those of the healthy one.

In Figs. 1 and 2 of Plate VI. their peculiarities depend to a great extent upon the absence of the pyramidal tract. Although in the section through the mid-brain (Fig 2) the tegmental area of the affected side is appreciably diminished, in all probability it is that portion of its constituents known as the fillet that has suffered; the slight diminution in the grey matter of the testes and in its superficial and deep layer of fibres is also to be noted.

The reduction in the pedal system of fibres is far more extensive than can be accounted for by the absence only of the pyramidal tract; the whole of its constituents have suffered in a very marked manner, although portions of the frontal cortical, and temporo-cortical divisions of the corona-radiata were present in the hemisphere brain, as well as portions of the caudate and lenticular nuclei, from which sources the other main divisions (apart from the pyramidal tract) of the pedal system of fibres are said to have their origin.

II. *General Observations.*—The first matter that struck me personally in regard to this specimen was—in what manner did the large portion of the affected hemisphere, which was unquestionably healthy, lying adjacent to the longitudinal fissure, perform its functions? It contained a large portion of what is termed motor area (para-central lobule, the two central convolutions, etc.), yet this was cut off from its direct spinal or other connections by the absence of the great proportion of the coronal system of fibres.

Were the frontal and temporal ends of this system, much diminished as they were, sufficient to enable what remained of the hemisphere to live and act in a healthy manner through such long association bundles, as the cingulum, and superior longitudinal, or, as is more likely, did the callosal system, present, as it was, and not affected in a striking way, enable this portion of the hemisphere to live and function by bringing it into relation with the coronal system of the

opposite or healthy side, for it is unquestionable that the greater part of what is called motor area can live in the almost complete absence of the pyramidal tract.

I do not depend on this single specimen, valuable as it is, for this opinion, for in the winter succeeding the summer of 1889, in which I received this encephalon, I obtained two in the dissecting-room from subjects who were not idiots, nor had they ever been under restraint. One was from a very fine female, in which no external evidence could be detected of extensive brain disease (atrophy and contraction of the various segments of the limbs, etc.), yet, with the exception of the optic apparatus, the waste in the hemisphere and its basal parts, in the thalamus, crus, pons, and medulla, was very similar, there being, however, no ventricular communication, nor radial arrangement of sulci or gyri, nor were these latter in a micro-gyrous condition round the aperture, this being formed almost as if it had been cut with the knife out of an otherwise healthy hemisphere.

The other specimen was obtained from a subject who had been a soldier in his younger days, there being present, and very well marked, all the external evidence noted as being absent from the preceding.

The area of hemisphere waste was again almost similar, except that the temporal lobe was spared. The general surface of the affected hemisphere was not in such a good condition, however; the waste in the thalamus, pons, and medulla was also the same, except that in both of these dissecting-room cases the disappearance of the pyramid in the medulla was not so complete as in the true porencephalic one.

The evidence of these two, then, support the opinion stated, that the greater portion of the so-called motor area can live and function in the almost complete absence of the pyramidal tract, by the aid of either or both channels of communication mentioned.

The next matter of importance to be settled was what was actually implied by the use of the term porencephaly. Heschl, who introduced it, meant pits or depressions on the hemisphere surface, congenital in origin, that might or might not communicate with the ventricular cavity. Kundrat, whose Monograph is the most important on the subject, extended the application of the term to cases which could be acquired after birth, noting, however, the very different character of the sulci and gyri round the aperture

in those cases which had their origin during the development of the brain.

These distinctions are well exemplified in the case illustrated here, and in the two mentioned as being obtained in the dissecting-room.

Kundrat includes among his cases, however, those where developmental changes are so profound that in my judgment they ought to be relegated to hydrocephalic, microcephalic, or other pathological divisions.

A little consideration will show the difficulty in attaching a fixed meaning to a term that would be generally applicable, more especially in regard to the importance that might be imputed to ventricular communication, and to the effects that would follow the destruction or disappearance of particular portions of the hemisphere wall, as distinguished from that of other portions.

In the case described here the development was normal up to a stage when the opercula began to form, and the callosal fibres had appeared. (In human foetuses, having a head and trunk measurement of 12 to 13 c.m., head extended, not flexed on the thoracic wall, as it is in the ordinary intra-uterine position.) The area affected broke down from some pathological cause (vascular, inflammatory, etc., according to authors), was removed, and free communication established between the ventricular cavity or cavities and the ventral sub-arachnoid spaces.

In the adult female specimen found in the dissecting-room life had been presumably as usual until within four or five years of the date when she reached my hands, the same area broke down (in this case probably from emboli in certain branches of the middle cerebral artery), was removed, no ventricular communication was established, but there was only altered ependyma and pia preventing this; the formed sulci and gyri, could not arrange themselves in a radiate manner round the aperture, as did the soft and pliant portion of the hemisphere wall, which would give rise to them in the preceding case; the same degenerations, however, occurred, less complete, the optic apparatus not being involved in the adult case, but the effects generally on the subjects concerned, although occurring at nearly the extremes of life, must have been identical, yet the adult case, because it did not communicate with the ventricle, would by some be excluded from the definition.

Further, the various possible sites for a porencephalic

defect to exist on the hemisphere wall, or its basal portion, which would lead to the ventricular cavity, would have a very significant difference in meaning to the various subjects affected, all of whom might be described as porencephalic.

All connections of the cortex of every kind (excluding, perhaps, commissural, and associating); with all parts of the body, whether streaming up or down, all must pass by way of the coronal, or what is better called the projection system of fibres (except those having connection in an upward direction with the cortex of the central lobe or insula). I have given a Fig. 3 of Plate VI. of the normal lateral aspect of this system as it appears on its way to or from the mantle part of the hemisphere brain, so that the reader may see at a glance that any defect which destroys masses of fibres in this position must have a very different effect on the various systems or organs of the body (muscular, osseous, nutritive, special senses, etc.) from a defect which involves any other portion of the hemisphere wall. One can easily imagine apertures communicating with the ventricle, along the floor of the hippocampal, calcarine, or parieto-occipital fissures, or through even the dorsal or median half of the sulcus of Rolando, or through any portion of the dorsal surface of the callosum, yet defects in any of these positions could not affect the bodily organs in the same degree, as those in situations, where great groups of representative fibres are massed together, as they are along the corona.

Thus there would be porencephaly *and* porencephaly from the sufferer's point of view.

Again, should the term be applied (as has been done) in those cases where it occasionally accompanies other and more profound changes in the normal development of the hemisphere brain, and its basal parts, as well as in the other divisions of the encephalon, seen in internal hydrocephalus, micro-cephaly, and such like pathological conditions, changes, which for ever preclude the individual from taking any share in the responsibilities of ordinary life, and in which it is only one feature, and that a very subordinate one. Ahlfeld has classified the term as a subdivision of hydro-micro-cephaly ("Missbild. des Menschen," II. Abschnitt, s. 275), but in my judgment it should be restricted to those cases where it is the only defect in otherwise normally developed brains, whether the defect communicates with the ventricle or not, this being a small matter, if it involves

the entire thickness of the hemisphere wall, apart from the ependyma.

This would cover cases occurring at any period of life, intra or extra-uterine, as the results on the body systems generally are closely similar, though, perhaps, differing slightly in degree.

It is not for me to speak of the cause of such defects; they have been set down as due to arrest of development, extreme hydrocephalic conditions, emboli, and hæmorrhage, encephalitis, which may be specific, profound anæmia, and such like, all of which those interested can read of in the published cases.

III. *Literature*.—In Germany, as I have already stated, the monograph of Kundrat, "Die Porencephalie, eine Anatomische Studie," Graz, 1882, is by far the most important that has been published. It deals with twenty-nine cases recorded before the date of his study, eight cases by Heschl, "Prager Viertel Jahrsschrift," 1859 and 1868, six by Cruveilhier, cases by Deschamps, Hennoch, Abercrombie, Andral, Brechet, Meschede, v. St. Germain, Roger, Hügel, Brodowski, Huguenin, and Chiari. His own personal observations were twelve in number. He differentiated several forms of porencephaly, and made the distinctions already referred to. In a "Nachschrift" he refers to three cases by Prof. Klebs, published in the "Jahrbuch für Pädiatrik," vii., Jahrg., 1876, under the title "Über Hydro- and Micro-anencephalie," but could not agree with Klebs as to the cause, set down by him as due to local vascular obliteration.

The next most important contribution is the case described by Schattenberg, a pupil of Prof. Marchand, of Marburg, "Ueber einen Umfangreichen porencephalischen defect des Gehirns bei einem Erwachsenen," with one Plate and 10 Figs. in the text, in the "Beiträge zur Path. Anat. und zur Allg. Path.," v. Band, 1 Heft, Jena, 1889. This case was not unlike the one here described, only more of the frontal lobe was involved. The author considers his case to be one of true congenital porencephaly, as distinguished from the cases acquired in later life, included under the term by Kundrat; that the distinction was essential, not only because of the radial arrangement of the sulci and gyri, but also because of the structure and relation to the ependyma of the ventricular cavity of the membrane circumscribing the aperture; that the membrane contained as a constituent the remains of the hemisphere wall; that these several features could

not be seen in cases acquired after birth, where the wall of the defect was formed by the pia, the naked medullary substance of the brain, and altered ependyma.

He would thus exclude the cases described under the term which had their origin after birth, and could arise from various causes, from those exhibiting the characters described in his case (well-marked in the case recorded here), thus leaning more to Heschl's application of the term than to that of Kundrat.

He gives a summary of cases recorded after the date of publication of Kundrat's Study. Those of Rehm (*"Zeitschr. für Ration. Path.,"* Bd. ix., p. 220), von Tüngel (*"Klin. Mitteil. aus der Med. Abth. des Allg. Krankenhauses zu Hamburg,"* 1860, s. 65, and 1861, s. 79), Schüle (*"Allg. Zeitsc. für Psych.,"* Bd. 26, p. 300), Clarke (*"Journ. of Ment. Sci.,"* 1879), Budin (*"Ziemssen's Handbuch,"* 2 Aufl., Bd. 11, p. 907), Weber (*"Deut. Med. Wochenschrift,"* 1880, p. 283), Mierzejewsky (*"Archiv. de Neurologie,"* Vol. i., p. 353, 513), Binswanger (Virchow's *"Archiv.,"* Bd. 87, s. 427), Ross (*"Brain,"* 1883, p. 473), Sperling (Virchow's *"Archiv.,"* Bd. 91, s. 260), De la Croix (Virchow's *"Archiv.,"* Bd. 97, s. 307), L. Bianchi (*"Ref. in l'Encéphale,"* Vol. v., p. 113), Binswanger (Virchow's *"Archiv.,"* Bd. 102, s. 13), Lambl. (*"Archiv. für Psych.,"* Bd. 15, s. 45), Otto (*"Archiv. für Psych.,"* Bd. 16, s. 215), König (*"Allg. Zeitsch. für Psych.,"* Bd. 42, s. 138), Monakow (*"Archiv. für Psych.,"* Bd. 14, s. 734), Limbeck (*"Prager Zeitsch. f. Heilk.,"* Bd. 7, s. 97), Steinlechner-Gretschischnikoff (*"Archiv. für Psych.,"* Bd. 17, s. 649), Mingazzini und Ferraresi (*"Unters. z. Naturl. des Mens. und der Thiere,"* Moleschott, Bd. 14), Schultze (*"Beitrag zur Porenc.,"* Heidelberg, 1886), Birch-Hirschfeld (*"Lehr. des Path. Anat.,"* 3 Aufl., Bd. 2, s. 236), Jensen (*"Arch. für Psych.,"* Bd. 19, s. 269).

Also he notes cases which were extra-uterine, and possibly of traumatic origin. Herter (*"Inaug., Dissert.,"* Berlin, 1870), Heubner (*"Berliner Klin. Wochensch.,"* 1882, p. 737), Koerner (*"Berliner Klin. Wochensch.,"* 1885, Nos. 17 and 18), Petrina (*"Prager. Med. Wochensch.,"* 1886, Nos. 37-38), Witkowski (*"Archiv. f. Psych.,"* Bd. 14, s. 411).

Marchand, in a *"Nachtrag,"* adds to the above two cases by von Anton (*"Zeitsch. für Heilkunde,"* Prag., 1888, Bd. 9), also a case in his own possession of a newly-born child with congenital syphilis.

This contribution brings the record of cases in Germany

down to 1889. Since then I have read cases recorded by— (1) Moeli ("Archiv. für Psych.," Bd. 22), who deals with the atrophy in the optic apparatus (well-marked in the case recorded here). This atrophy is also dealt with by Monakow ("Archiv. für Psych.," Bds. 14, 16, 20, and 22), by Richter (Bd. 16 of the same), by Zacher (Bd. 22 of the same), and by Schmidt-Rimpler ("Archiv. für Augenheil.," Bd. 19). (2) von Anton ("Über Angeborene Erkrankungen des Central-Nervensystem," Wien, 1890). (3) v. Monakow, a case communicated to the Med. Soc. of Zurich, recorded in the "Correspondenz Blatt für Schweizer Aerzte," 21 Jahrg., No. 6, 1891. (4) Kreuzer (Allg. Zeitschr. für Psych.," Bd. 48, 1892). In addition I have mislaid the references to two cases of which I saw a summary in "Virchow Hirsch," or similar German year book.

In France the subject has been dealt with purely from a literary point of view by Audry ("Les Porencephalies" in the "Revue de Médecine," June and July, 1888). He gives an analysis of 103 cases, including a number recorded by French observers, missed by the German authors (the cases noted in German literature amounting to a little over eighty in number). Of these 103 cases sixty-two had been expressly noted as having free ventricular communication.

He quotes from English literature, in addition to the cases of Abercrombie, Clarke, and Ross, noted by Kundrat and Schattenberg, one by Anderson ("Trans. Roy. Soc.," Edin., Vol. ii.), and another by Warner and Beach ("Brain," 1880). He discusses the pathological anatomy, the pathology, the clinical ætiology, the symptoms, the diagnosis, and the prognosis, all of which I must pass over.

IV.—*Explanation of the Plates.*—These form examples of the different methods of illustration at the service of the scientific worker.

Plates I., III., and VI. are lithographic ones made by myself. Plates II. and IV. are half-tone blocks made in Berlin from prints taken from my negatives. They are not good, and do not do justice in any way to the negative, but that may be more the fault of the print than the maker of the blocks.

Plate V. is a collotype made from a portion of my negative, which contained twenty sections instead of the number which appear on the Plate. Of course the sections which were made by the freehand, photographed by reflected light, and not differentiated in any way by staining (except what

Müller's fluid can do) represent only the infancy of section cutting, and do not give a chance to this beautiful process of reproduction, which cannot show more than what is in the negative, the latter representing the skill and mastery of both photographic, and morphological technique, of the particular worker, a matter very frequently overlooked. What the process can do for morphological anatomy can be better judged from my plates in Vol. xii. of the "Trans. of the Roy. Acad. of Med. in Ireland."

Plate I., Fig. 1, is the ventral view of the encephalon; natural size. Fig. 2 the same after the removal of the greater portion of the mantle or pallial part of the hemisphere brain.

Plate II. Both the figures are slightly reduced by the maker of the blocks. Fig. 1 is the lateral view of the encephalon, and showing this aspect of the membranous sac. Fig. 2 the same aspect after removal of the membrane.

Plate III., Fig. 1, shows the lateral aspect of the healthy half of the encephalon; natural size. Fig. 2 the dorsal view of the healthy and affected hemispheres.

Plate IV., Fig. 1 (natural size), shows the dissection that has been made to lay bare the dorsal aspect of the striate part of the hemisphere brain, and of the thalamic and mid-brain. The dorsal half of the cerebellum has been removed.

Figs. 2 and 3 show the dissection that has been made to lay bare the roof and nearly all the floor of the ventricular cavity of the hemisphere brain, the two ventricular cavities being thrown into one by the absence of the septum pellucidum. The figures are reduced in the proportion of 18 c.m. natural size (antero-posterior length of dissected hemisphere), to 11 c.m. reduced size.

Plate V. The negative contained twenty sections, but certain of these are excluded on the Plate for the reason already stated. Those at the caudal end of the medulla (below the inferior olive) show complete absence of the pyramidal tract, and the twist of the healthy pyramid to the affected side. The sensory crossing and all the other characteristics of the medulla have been noted in the text. In the sections at the cephalad end the pyramid has gathered a little on the affected side. The figures are nearly twice the natural size.

Plate VI., Fig. 1, represents a transverse vertical section through the pons cephalad to the exit of the fifth nerve. It shows the amount of waste in the pedal system of fibres on

the affected side. The tegmental system has not suffered much apparently. Fig. 2 is a transverse vertical section through the mid-brain in the region of the posterior tubercles of the corpora-quadrigenina. Even here the constituents of the tegmental system have not suffered in a marked degree.

The pedal system has, however, undergone enormous diminution, and that not alone in the pyramidal constituent, but in all of them. Both the figures are enlarged twice the natural size. Fig. 3 shows the lateral aspect (natural size) of the normal central lobe, or insula, and corona radiata. The thalamic and mid-brain, with the position of the pons and cerebellum, the olfactory and optic outgrowths from their respective regions are also shown. The line drawn through the corona, central lobe, and pulvinar, marks roughly the amount of these regions wanting in the encephalon, the peculiarities of which have been shortly touched upon in this paper.

On the Typical Microscopic Lesions found in the Brain in Insanity: A Demonstration by T. S. CLOUSTON, M.D., JAMES MIDDLEMASS, M.A., M.B., B.Sc., and W. F. ROBERTSON, M.B., Royal Asylum, Edinburgh.

Dr. Clouston explained that he was the spokesman of Drs. Middlemass and Robertson, who had made almost all the sections and had supervised the micro-photography. He explained that as yet micro-photography had many disadvantages owing to the very delicate structure of the brain and the high powers that had to be used, as well as the difficulty in photographing many of the aniline stains. In the case of some of the sections more than six slides had been made before a satisfactory photograph was got.

Fifty-three sections were shown under microscopes and sixty-three slides by the lantern on the screen. Two lanterns were frequently used to bring out the contrasts between the normal and the pathological appearances of the same structures, both images being thrown on the screen at the same time. Most of the sections had been made by Bevan Lewis's fresh method, a few being made by the older hardening processes, and some by Golgi's method. The changes in the chief structures in the cranium were demonstrated. On account of the unquestionable solidarity

that exists among them all teleologically, they all existed to serve the brain and its functions. Membranes, blood-vessels, lymphatics, neuroglia, spider cells, endothelium, nerve fibres and nerve cells had all an organic unity. They were all found diseased in insanity. No doubt a demonstration of any tissue change, whether gross or microscopic, did not really explain the pathology of mental disturbances, but the microscopic changes brought us nearer that end than the grosser lesions, and we could now say definitely that in all the well-marked and long-continued mental diseases the intimate structures of the brain could be shown to be distinctly diseased, even where no naked-eye changes could be seen. There was a vast hiatus between a degenerate nerve cell and a delusion, which in time might be filled up by hypothesis and generalization.

The following were the sections shown with the chief points illustrated by each:—

Dura Mater.

No. 1.—*Transverse section of normal dura mater*, showing (a) the smooth inner surface lined by endothelial cells; (b) the normal structure of the fibrous tissue; (c) the small blood-vessels, of normal calibre and appearance.

No. 2.—*Transverse section of dura mater with fibrinous sub-dural membrane*, from a case of brain atrophy with phthisis, showing (a) the granular appearance of the membrane due to transversely-cut fibrin threads; (b) absence of vessels in the membrane.

No. 3.—*Surface view of a similar delicate fibrinous sub-dural membrane*, showing (a) network of fine fibrinous threads entangling leucocytes and a few endothelial cells; (b) the absence of vessels.

No. 4.—*Transverse section of dura mater with organized sub-dural membrane*, from a case of general paralysis, showing (a) the distended vessels of the dura; (b) a thick membrane consisting of developing fibrous tissue and containing (c) delicate capillaries distended with blood, (d) granular masses of altered blood pigment.

No. 5.—*Surface view of a similar organized sub-dural membrane* from a case of senile insanity, showing (a) a network of capillaries with delicate walls, (b) granular masses of altered blood-pigment in close relation to the vessels, (c) cellular elements in process of development into fibrous tissue.

Pia-arachnoid.

No. 6.—*Transverse section of normal pia-arachnoid*, from the brain of a child, showing its thickness, texture, and the number of cellular elements.

No. 7.—*Transverse section of thickened pia-arachnoid*, from a case

of general paralysis, showing (a) great thickening, (b) dense infiltration with round cells.

No. 8.—*Transverse section of thickened pia-mater infiltrated with colloid bodies*, from a case of epilepsy.

No. 9.—*Transverse section of greatly thickened pia-arachnoid*, from a case of chronic alcoholic insanity.

Blood-vessels.

No. 10.—*Normal capillaries of cortex*, from the brain of a child, showing (a) their regular outline, (b) delicate and translucent walls, (c) number of nuclei present in the normal condition.

No. 11.—*Thickened and granular capillaries of cortex*, from a case of general paralysis, showing (a) their markedly irregular outlines, (b) somewhat opaque and decidedly granular walls, (c) considerable increase in the number of nuclei.

No. 12.—*Normal arteriole of cortex*, from the brain of a sane adult, showing (a) its regular outline, (b) degree of translucency, (c) number of nuclear elements in its wall.

No. 13.—*A diseased arteriole*, from a case of general paralysis, showing (a) markedly irregular outline, (b) thickening of wall, (c) irregular aggregations of round cells in it.

No. 14.—*Arteriole showing deposit of altered blood-pigment* in the perivascular space, from a case of general paralysis.

No. 15.—*Arteriole showing fatty degeneration of its wall*, from the cortex of a case of chronic delusional insanity. There are seen (a) very irregular contour, (b) deposit of fat in granular masses.

No. 16.—*Syphilitic endarteritis obliterans of cerebral artery (transverse section)*, showing the formation of much new tissue within the internal elastic lamina.

No. 17.—*Miliary aneurisms of vessels of pia mater*, from a case of senile mania. (From a specimen by Dr. J. J. Brown.)

No. 18.—*Minute apoplexies in the cortex* from the same case as the previous. There are seen several dark areas which are small hæmorrhages due to the rupture of aneurisms of the cortical vessels similar to those seen in the pia mater.

Neuroglia.

No. 19.—*Normal neuroglia of brain*. This photograph was of a section prepared from the brain of a healthy sheep by the fresh method, and is intended to demonstrate that the so-called "spider-cell" (larger cell element of neuroglia) is a normal constituent of the brain. In the healthy human brain the very delicate processes of these elements are not brought out by this method. In the brain of the sheep, however, they can be recognized, though with difficulty.

No. 20.—*Hypertrophied spider-cells*, from the margin of a small softening in the cortex in a case of senile insanity.

Nerve-cells.

No. 21.—*Normal large pyramidal cells of the cortex*, from the brain of a child, showing the appearance of the protoplasm, nucleus, and processes.

No. 22.—*Nerve-cells of cortex of hedgehog by Golgi's method.* (From a section by Dr. G. Mann.)

No. 23.—*First stage of pigmentary degeneration of nerve-cells—period of over-activity*—from a case of epilepsy, showing the cell slightly swollen, the protoplasm and processes deeply stained, and the latter intact.

No. 24.—*Second stage of pigmentary degeneration of nerve-cells—period of diminished activity*—from a case of general paralysis, showing the cell in process of shrinking, the protoplasm staining faintly, pigment increased and surrounded by a "sclerosed zone" of protoplasm, and processes faintly stained.

No. 25.—*Third stage of pigmentary degeneration of nerve-cells—period of absorption*—from a case of senile insanity, showing cell still more shrunken, distorted, and breaking down, remaining protoplasm faintly stained and containing numerous pigment granules, processes mostly gone, nucleus eccentric, deformed, and irregularly stained.

No. 26.—*Early stage of granular degeneration of nerve-cells*, from a case of epilepsy, showing (a) granular condition of the protoplasm; (b) nucleus still distinct.

No. 27.—*Advanced stage of granular degeneration of nerve-cells*, from a case of delusional insanity, showing (a) protoplasm coarsely granular and faintly stained, (b) processes disappearing, (c) nuclei faintly stained and indistinct.

Nerve-fibres.

No. 28.—*Colloid bodies* in the outer layer of the cortex, from a case of epilepsy. It is to be noted that they have no affinity for the aniline blue-black stain.

No. 29.—"*Miliary sclerosis*," from a hardened section of the medulla, stained with carmine. (Section prepared by Dr. J. J. Brown.)

No. 30.—"*Amyloid bodies*," from the cortex of a case of general paralysis, showing a group of four rounded bodies upon a vessel-wall, which, in contrast to the colloid bodies, are stained with the aniline blue-black.

No. 31.—*A peculiar form of degeneration of the cortex*, from a case of acute mania. (For a full description of the case see Dr. Clouston's "Clinical Lectures," p. 188.)

No. 32.—*Granulation of ependyma*, from the fourth ventricle of a case of general paralysis.

No. 33.—*Granulation of ependyma*, from the lateral ventricle of a case of general paralysis, showing that a "granulation" is formed by

a localized overgrowth of the sub-epithelial neuroglia, and that in places the normal epithelial covering often disappears.

General Paralysis.

No. 34.—*Transverse section of pia-arachnoid*, showing (a) great thickening; (b) dense infiltration with round cells.

No. 35.—*Pia mater and outer layer of cortex*, showing pia as in previous photograph, and numerous hypertrophied spider-cells below it.

No. 36.—*Pia mater and first layer of cortex with vessel passing downwards from the former*, showing (a) great increase of nuclei in vessel-wall; (b) large number of spider-cells with their processes forming a dense network, many of them being attached to the vessel. These changes explain how, when the pia mater is stripped off, a portion of the grey matter is removed along with it, leaving an eroded surface.

No. 37.—*Outer layer of cortex*, showing a number of spider-cells with interlacing processes. It is in this layer of the cortex in general paralysis that the development of spider-cells is most marked.

No. 38.—*Thickened capillaries in the grey matter*, from an advanced case.

No. 39.—*Thickened arteriole*, showing (a) an excessive number of round cells in the adventitia, causing irregularity of its outline, (b) numerous spider-cell processes attached to it.

No. 40.—*Transverse section of a similar cortical arteriole.*

No. 41.—*A typical spider cell*, showing a prominent "vascular process" and numerous other fine processes.

No. 42.—*Spider-cells of cortex prepared by Golgi's method*, showing several vascular processes from a single cell.

No. 43.—*Spider-cells in white matter.*

No. 44.—*Nerve-cells of the cortex from an early case*, showing the changes characteristic of the first stage of pigmentary degeneration.

No. 45.—*Nerve-cells of the cortex from an advanced case*, showing the changes which characterize the third stage of pigmentary degeneration.

No. 46.—*Nerve-cells of hypoglossal nucleus*, from an advanced case, showing various stages of pigmentary degeneration.

No. 47.—*Transverse section of peripheral nerve*, stained by Vassale's method, showing marked degeneration of most of the fibres.

Alcoholic Insanity.

No. 48.—*Pia-arachnoid and outer layer of cortex*, showing (a) dense infiltration and thickening of pia-arachnoid, (b) marked sub-pial felting.

No. 49.—*First layer of cortex*, showing numerous colloid bodies and spider-cells.

No. 50.—*Cortical arteriole*, showing thickening and localized aggregations of round cells.

No. 51.—*Spider-cells in the deepest layer of the cortex.*

No. 52.—*Nerve-cells of the cortex, showing granular degeneration.*

Epileptic Idiocy.

No. 53.—*Nerve-cells of cortex of full-time fœtus, showing (a) deeply-stained and prominent nuclei, (b) a small quantity of granular protoplasm around these.*

No. 54.—*Nerve-cells of frontal cortex in a case of congenital epileptic idiocy, showing a condition which does not differ from that of the cells in the preceding photograph. This condition has been named by Bevan Lewis "Developmental Arrest of Nerve-cells," and is the characteristic pathological change found in a number of cases of the above kind.*

Senile Insanity.

No. 55.—*Small softening in the cortex, showing a small central softened area surrounded by a zone of hypertrophied spider-cells.*

No. 56.—*An atrophied area in the cortex.*

No. 57.—*Pia mater and outer layer of cortex, showing (a) thickening of the pia, (b) numerous colloid bodies in the pia and below it, (c) some sub-pial felting.*

No. 58.—*Nerve-cells of cortex, showing advanced pigmentary degeneration.*

Acute Mania (Puerperal).

No. 59.—*Nerve-cells of cortex, showing great degeneration of the protoplasm and processes, and well-marked vacuolation of the nuclei. The case was one in whom the prognosis of recovery was very favourable, and the fatal termination may have been brought about by the above morbid changes in the brain-cells, which were present in all the layers.*

Chronic Mania.

No. 60.—*Nerve-cells of cortex, showing great excess of physiological pigment, but almost no signs of actual degeneration.*

Delusional Insanity (with auditory hallucinations).

No. 61.—*Nerve-cells of 1st temporo-sphenoidal convolution (auditory centre), showing advanced granular degeneration, which was confined to this region.*

Secondary Dementia.

No. 62.—*Nerve-cells of cortex in a patient aged 44, showing the cells much degenerated, distorted and shrunken, protoplasm and nucleus staining faintly and irregularly, and the processes mostly gone.*

Visceral Melancholia.

No. 63.—*Nerve-cells of semi-lunar ganglion, showing degenerated protoplasm and great excess of pigment.*

On the Normal Constituents of a Convolution, and the Effects of Stimulation and Fatigue on Nerve Cells: A Demonstration.
By J. BATTY TUKE, Senr., M.D., F.R.C.P.E., Edinburgh.

It is not suggested that the specimens to be shown on the screen afford anything like an exhaustive demonstration of the constituents of a convolution. They are mainly intended to show the extreme value of Golgi's method for elucidating the important anatomical connections between cell and cell, and between area with area. Dr. Clouston must be congratulated on being able to submit such an admirable series of slides illustrative of the microscopic morbid anatomy of the brain. One experiences a feeling of envy of the rising generation at being able to start so far along the road. When I some thirty years ago began such investigations I could not make a section—only two men in Great Britain knew how to do so. I had to commence at zero; and I shall never forget the feeling of satisfaction when for the first time I was able to demonstrate a nerve-cell by my own unaided efforts. But methods of imbedding, cutting, and staining were soon discovered, and those of us who were working at the subject were, within a few years, able to demonstrate, describe, and figure a large proportion of the morbid changes which have been so brilliantly exhibited to-day. With such a demonstration the first volume of the pathological anatomy of the insane brain may be considered to be closed; it may have to be re-opened from time to time for marginal notes, but for all practical purposes of the post-mortem theatre we know roughly the general characters of the changes in the membranes, vessels, cells, and glia, so far as they can be made out by the Bevan Lewis and other methods. The second volume must deal with interruption of connections due to changes in the cells. This will be a long and difficult task; but if, as we have seen to-day, so much has been overcome within the last thirty years, we may fairly anticipate that the next generation of workers will accomplish very much more. The great value of Golgi's method and its modifications is that the various processes of the cells can be traced for long distances, and the characters of their insulating material can be demonstrated. When I place before you the best demonstration of a nerve-cell that can be obtained by aniline staining and another prepared by Golgi's process, you will at once see the immense advance that has been made. In this section of a great pyramid the character of the axis cylinder process at the base is seen to differ from the "splendid tufts" (as

Ramon y Cajal calls them) in which the apical protoplasmic process ends; the basal axis cylinder is shown to bifurcate and to throw off numerous collaterals; and the lateral protoplasmic processes can be traced for long distances. The apical processes and the "splendid tufts" present a mossy appearance, differing in this respect from the apical poles of cells of other zones, and from the basal axis cylinder process of the pyramids. It can be determined that these processes are never anatomically connected; therefore, that the impulses they convey must be transmitted by contact only. When discussing lately with Prof. Cuninghame the probable function of this mossiness I suggested it must be for the purpose of presenting a more extensive area of contact, and this view is supported by the interesting statement made by Dr. Andriezen that he has found in chronic dementals that the mossiness has been lost or much diminished. Ramon y Cajal has, by his modification of Golgi's process, demonstrated the important fact that the poles of the external or molecular layer, of the pyramidal zone, and of the internal or polymorphous layer differ in their distribution, those of the outer zone being directed horizontally, and for the most part antero-posteriorly, and never descending; that the axis-cylinder process of the pyramid is in direct communication with the projection fibre, and probably with the commissural fibre; that its apical process runs up to the surface of the brain; and that the poles of the great cells of the polymorphous layer never extend beyond the pyramidal zone. This, along with the demonstration of the large cells (Cajalsche Zellen) of the molecular layer strongly suggest that each zone exercises special functions. It is impossible on the present occasion to go into further particulars. I must apologise for the roughness of the demonstration. I thought it might interest some members to be able to see what important results may be looked for from the use of Golgi's and Ramon y Cajal's methods. If we hold that mental action is a function of connection it is of extreme value to have at our command a method of investigation by which may be shown that the cell-processes suffer a Wallerian degeneration as a consequence of the implication of cell integrity.

[Dr. Tuke also demonstrated the effects of stimulation and fatigue in ganglionic and cerebral cells as shown by Hodge, of the Clark University, Mass. He referred the members to the description he had given of the results of these experiments in a series of lectures lately published in the "Edinburgh Medical Journal."]

*On Some of the Newer Aspects of the Pathology of Insanity :
A Demonstration, with Specimens prepared by W. LLOYD
ANDRIEZEN, M.D.Lond., Pathologist and Assistant
Medical Officer, West Riding Asylum, Wakefield.*

(Abstract.)

After noting the importance not merely of the study of the origin, evolution, and structure of the central nervous system, but the importance of the attempt to correlate these with the actual life-activities of the organism in both health and disease, Dr. Andriezen showed how the neglect of alienists to follow and work up these investigations entailed their falling back and separation from the advancing army of neurological workers. He hoped that, with the awakening of the spirit of inquiry and scientific research in our asylums, that reproach might be wiped away, and that an attempt would be made to study and localize the lesions in the insanities, making use of all the methods available—neurological, psychological, pathological, sociological, and experimental.

Dr. Andriezen referred at some length to the labours of Hughlings Jackson, Fritsch and Hitzig, and Griesinger, and the more recent histological work of Golgi and Cajal. He then dwelt upon the doctrine of the "neuron" as the basis of nerve-function, and the inter-relations of the neurons within the central nervous system, giving illustrations from spinal cord and cerebrum. Referring especially to the cortex, he observed that, when the conditions described for the cortical type of nerve-mechanism are realized, the foundations are laid for possibilities in nerve-activity which may grow into the most elaborate forms of movement and conduct. For the whole complex of cortical neurons is so disposed that they may deal with the nerve-currents of the various specific incoming sensory excitations, weaving and elaborating out of these higher and more complex sensations, which we designate psychical states—mental acts of cognition and recognition, comparison, discrimination, judgment—ultimately issuing in the reactions of conduct. The cortical areas are themselves complex structures (layers of cortical cells, groupings and cell-clusters, complexes of associated unilateral and bilateral clusters), yet in each of these the individual neuron preserves not only its integrity as distinct from other neurons, but also its three-fold character as a nutritive and dynamical doubly-connected apparatus;

and we have here the elaboration of energy carried highest in the whole organic world. The cortex is not to be looked upon merely as only the meeting place, so-to-speak, of the various sensations which fall upon the organism from the external world. For the organism itself reacts to these, and these reactions—their quality, extent, variety, etc.—themselves excite sensory fibres which, passing from the various reacting tissues of the body (*e.g.*, kinæsthetic impressions), also reach the cerebral cortex. The cerebrum, as a whole, is thus a double representative organ, in which both the environment and the body of the organism are represented, the two sides of which organ can not actually or speculatively be separated. Thus the importance of a correct appreciation of the cortical type of nerve-mechanism cannot be over-estimated; here is the anatomico-physiological basis for every form and quality of sensorial, psycho-motor, and psychical life.

In the human brain, he said, his investigations were made with Golgi's method in the first place, and with a variety of others which would be duly cited as occasions arose. In this department Dr. Andriezen observed that he was at present able to quote no observations except his own, for nearly all workers (Golgi, Cajal, Retzius, etc.) had mainly restricted themselves to the brains of young and new-born animals. Indeed, Golgi's method and its modifications were mainly worked out on those lines; his own results, therefore, stand isolated in so far as they lack at present either co-workers or confirmation. The classification of brain structures which he proposes, and it seems to be a natural one, is into three groups of elements—(1) the neurons, (2) nutritive elements (lymphatic, vascular, secretory, etc.), (3) protective elements, and perhaps, (4) the ground substance.

Passing to the consideration of the neurons (nervous elements), Dr. Andriezen referred to the classification adopted by Meynert and Obersteiner. He himself proposed to classify these elements of the cortex into four layers, the second of which is different from and not co-extensive with that of these authors, viz.: First, molecular layer; second, ambiguous layer; third, "long pyramidal" layer; fourth, mixed pyramidal or polymorphic layer (including Meynert's granule *plus* spindle layers). But this classification is not based upon the external shape of the cell-body; it has a widely different significance, which was not seen or appreciated by Meynert, and which only the Golgi method of investigation, coupled with the comparative study of the

cortex in vertebrates *below* mammals, could adequately enable us to realize. (See Figs. 1 to 4.)

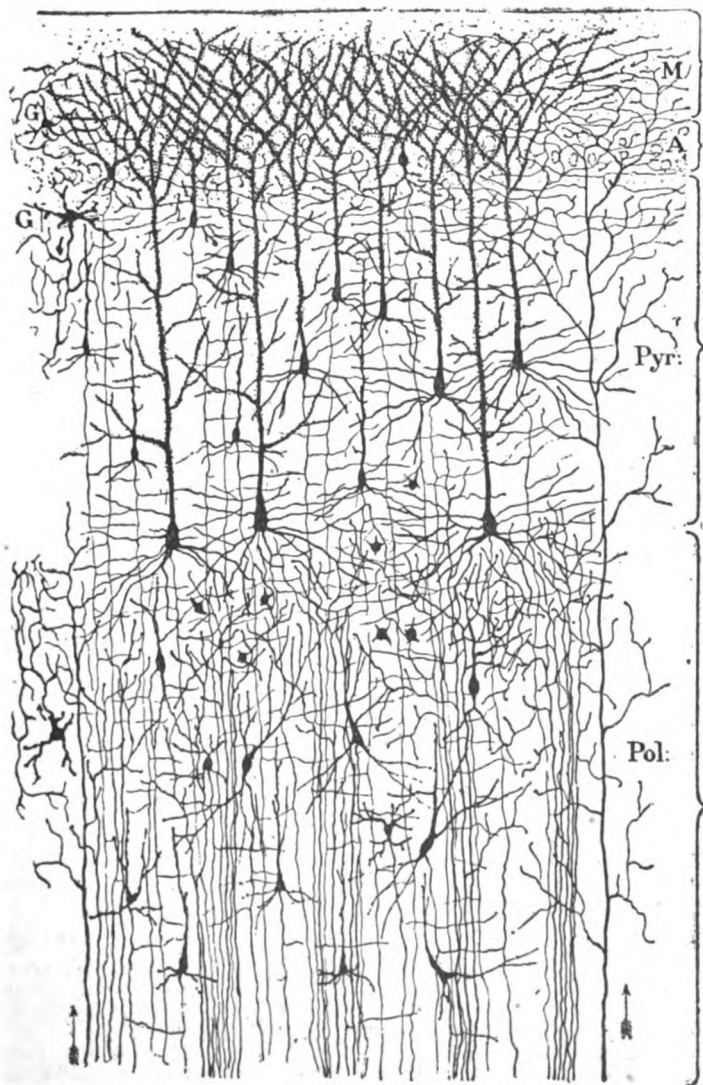


FIG. 1.

Structure of cerebral cortex in man (semi-diagrammatic) showing the nervous elements only.

M. Molecular layer.

A. Ambiguous layer.

Pyr. Pyramidal layer (long pyramidal cells).

Pol. Polymorphic layer.

These layers were described in detail, and especial attention drawn to the fact that, with the newer methods of investigation, ten or more different structures can be recognized in the "molecular layer," which in Meynert's time was thought to be composed chiefly of basis-substance and connective-tissue elements.

Dr. Andriezen then proceeded to give a detailed account of his work, illustrated by the specimens he had prepared. He then passed on to the consideration of the psychical accompaniments of nervous activity. The nervous excitation arriving at the cortex *via* the olfactory, optic, fillet, or other upward projection system, spreads out in the

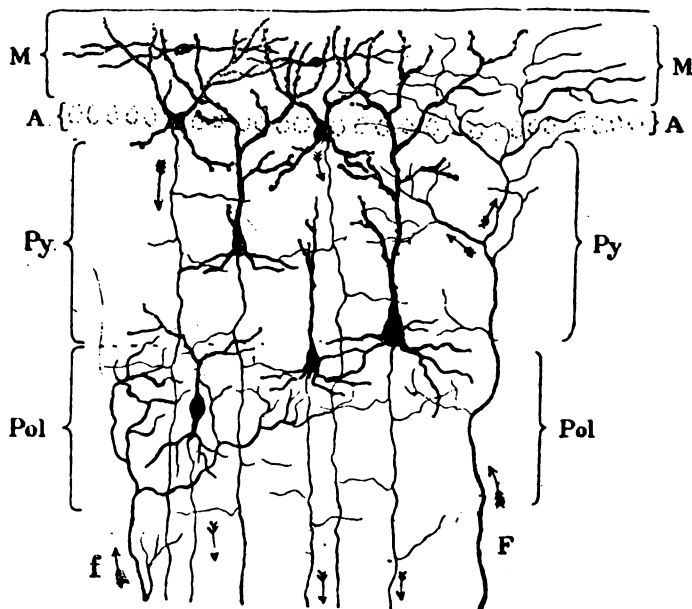


FIG. 2.

Diagram to illustrate the neuro-protoplasmic connections in the cerebral cortex.

M. Molecular layer or field of association between the subjacent ambiguous long pyramidal cells on the one hand, and the distribution of incoming nerve-fibres (projection, etc.) on the other. One such nerve-fibre (F) is a projection fibre, another (f) an association fibre.

A. Ambiguous layer.

Py. Pyramidal layer. This figure shows two "long pyramidal cells," and their apical distributions in the molecular layer.

Pol. Polymorphic layer. Two cells (a short pyramidal and a fusiform cell) are shown.

The arrows indicate the directions of the nerve currents.

molecular and sub-molecular layers of the primary cortical area which it enters, where these fibres terminate. Here it affects two intrinsic sets of cortical elements, the ambiguous and the long pyramidal. These cortical elements are thereby roused to activity, and discharge in their turn. The *excitation, rise of tension, and discharge* of the conjoint ambiguous-pyramidal elements thus affected is the "nervous process," the psychical counterpart or accompaniment of which is a sensation aroused in the mind. Such a sensation may be *faint or vivid* in intensity, according to the intensity of the cortical reaction in the primary cortical centre. Similarly, according to the locality and peripheral connections of the centre, the sensation may be *visual, tactile, gustatory, olfactory, kinæsthetic, etc.* That such an excitation of a primary sensory area of the cortex will be accompanied by its appropriate psychical sensation is now a well-established neurological fact. It is now thirty years since Hughlings Jackson taught that certain forms of epilepsy with local motor disturbances were almost uniformly due to organic disease of some kind, situated in the Rolandic region of the brain—a view comparatively neglected then, but which the revelations of the experimental school of workers (Fritsch and Hitzig in 1870, Ferrier, Munk, etc., 1872, *et seq.*) have accentuated. And following these a brilliant school of clinico-pathological investigators, such as Charcot (Charcot et Pitres, *Localizations Cerebrales*, "Revue de Medicine," 1879-83), Nothnagel ("Topische Diagnostik der Gehirn-Krankheiten," 1879), Wernicke ("Gehirn-Krankheiten," 1881), Ferrier ("Localization of Brain Disease," 1878), Allen Starr (Cortical Lesions of the Brain, "American Journal of Mental Science," 1884), and others have by their researches confirmed the truth of the Jacksonian doctrine, while contributing important additional details. By such work not only have the various centres, which incite to muscular movements (kinæsthetic centres) of the organism, been localized in the brain cortex, but also other important centres, which have to do with the perception of gustatory, olfactory, visual, and auditory excitations, have each and all of them been similarly localized. Thus the cortical field for the Jacksonian epilepsies has been considerably extended, and now includes all the areas just mentioned. So it happens that, just as when a kinæsthetic centre is aroused the psychical counter-process that is evoked is a sensation (cutaneous sensation) referred to this or that peri-

pheral movement which is in relation to the said centre, so, if the focal discharge be stronger, it issues downwards *via* the pyramidal cells to the bulbo-spinal motor centres, producing thereby movements of the face, tongue, hand, or foot, according to the site and locality of the cortical epileptogenous focus. And similarly with a focal discharge occurring in this or that special-sense area, we have aroused its psychical accompaniment, viz., a hallucination of this or that special-sense; gustatory, visual, olfactory, auditory, etc. We have thus kinæsthetic epilepsies, we have also special-sense epilepsies, and—to complete the picture—we may add that we have psychical epilepsies. Not that the other epilepsies are non-psychical, for each and every one of them has its own psychical counterpart, viz., a *feeling* of cutaneous excitation, or of a peripheral movement, or the excitation of one or other *special sense*. But in the psychical epilepsies in the stricter sense of the word there is a disturbance of a more distinctively psychical nature, consisting of a moderate mental disturbance (bewilderment, sudden loss of memory, stupidity and a dreamy state, or a reminiscence of certain ideas), or of a more serious violent and maniacal excitement, an intense furor in which the patient may do the wildest and most terrible deed, murder or even suicide, as the result of the intense cerebral (psychical) discharge affecting the higher regions of the brain. We cannot exclude this form, viz., psychical epilepsy, from the category of the other epilepsies; our aim and object should rather be, in following the light we now have, to work out its localization in the brain, to ascertain what area or what set of cortical elements is the seat of such epileptic discharge.

The comparative evolution of the cortex in higher vertebrates was next discussed; and especially the growth in the complexity of structure in the amphibian, reptile, and mammal. It was shown that *pari passu* with the growth and perfection of movement, there is a parallel growth of protoplasmic processes and collaterals of the nerve-cells in the Rolandic cortex; the same applied to the special sense areas, and full details with specimens were adduced to show that the qualitative elaboration of structure was the organic basis for the facts of psycho-genesis. Quality (*i.e.*, extent and complexity) of cerebral organization was the real basis of intellectual capacity, and thus a brain small in size (like that of Gambetta) may from its high intrinsic elaboration be able to subserve more varied, extensive, and

multiform activities in life and thought than others of greater size but grosser organization can.

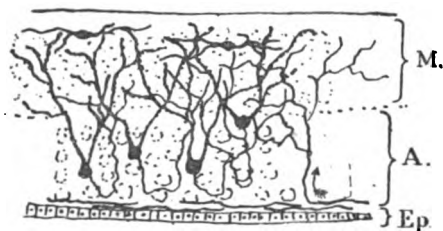


FIG. 3.

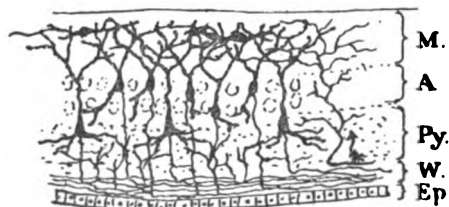


FIG. 4.

FIG. 3.—*Cortex of Frog's Brain (semi-diagrammatic).*

FIG. 4.—*Cortex of Lizard's Brain (semi-diagrammatic).*

M. Molecular layer.

A. Ambiguous layer.

Py. Pyramidal cell-layer (only in Lizard's Brain).

W. White matter.

Ep. Epithelial layer (ependyma).

(The arrow in both figures denotes a nerve-fibre coming to the cortex from elsewhere, and being distributed chiefly to the molecular layer.)

The author next proceeded to illustrate the law of pathogenesis, selecting for this purpose the insanities of chronic alcoholism, and dealing especially with the clinical and psychological phenomena of *amnesia*, incapacity for *attention*, easily induced *fatigue*, *insomnia*, and muscular *weakness and tremor*, which patients exhibit in various grades. He showed the results of his pathological investigations, carried out by Golgi's methods. Special stress was laid on the alteration and destruction of the fine naked collaterals and nerve-terminals, shown by the author's specimens to exist in the molecular layer, and also the swelling and softening of the very minute protoplasmic granules attached to the special processes in the superficial quarter of the cortex. These changes the author would class chiefly as dynamical, because they affected the nervo-protoplasmic plexuses only, in the

first place—such nervo-protoplasmic plexuses being the “field of association” between cortical neuron and cortical neuron, or between cortical neuron and the nerve-fibres (sensory pathways) arriving in the cortex from the outside. Co-extensive with those dynamical changes, there were other changes within the cell-body and nucleus of the cortical cells which could be with justice spoken of as nutritive changes, changes which hitherto had been shown to exist in other cells (muscular, glandular, etc.), but which a sort of pseudo-sanctity, which had hitherto hedged in the nerve-cell, had hindered us from sufficiently recognizing, or when recognized, had deterred us from attempting to correlate with clinico-psychological manifestations. He was glad to believe that the present and younger generation of workers felt that that was a state of things which was passing away. A detailed account, with Golgi and other specimens showing the changes in the polymorphic elements, was here given, both dynamical and nutritive changes being correlated with the clinical symptoms. After further dealing with the structure of the non-nervous elements which also entered into the composition of the brain, viz., (a) the *nutritive mechanisms* (vascular and lymphatic structures), and (b) the *protective mechanisms* (the perivascular and the superficial condensation systems of neuroglia-fibres, the ependyma formations, and the diffuse neuroglia fibre-system), the author stated that these are also involved in the alcoholic insanities; and that the earliest to suffer are generally the intrinsic cortical nerve-elements. He stated that the earliest dynamical changes in the nervo-protoplasmic plexuses which he had described, and which were generalized and extensive over various cortical areas, were to be correlated with the *diminished sensitiveness and alertness of the alcoholic to incoming sensory impressions*, and similarly a diminution of *spread of the excitation from one area to associated areas*. He would partly correlate this, plus the early intuitive changes described below, with the *amnesia*, and the *slowness of reaction time* of the alcoholic. He held that the early nutritive changes in the cell-body and nucleus, e.g., swelling and indistinct staining of the intra-cellular chromatin rods (as shown by Nissl’s methylene blue method, or by staining in toluidine after fixation and hardening in sublimate and alcohol), and the intra-nuclear *coarseness* and *increased intensity* of staining (as also shown by the second of these methods), coupled with the recent experimental observations on fatigue in nerve-cells (a subject he would not enter

further into, as Dr. Batty Tuke would deal with it very fully in his demonstration), indicate that the cell-protoplasm and nuclei in alcoholism are the seat of a distinct series of nutritive changes. He thought that the earliest change he had as yet recognized approximated to what Dr. Batty Tuke designated the fourth stage of nutritive impairment in his Morison Lectures ("On the Insanity of Over-Exertion of the Brain," 1894, Ch. II.), viz., that obtained experimentally after about eighteen hours' continuous stimulation of the nerve-cell. At this stage the cell-protoplasm is so much damaged that its capacities for repair (rebuilding, anabolism) are greatly diminished. He would correlate this with the *chronic insomnia* of early alcoholic insanity. A more *rapid* derangement of nutrition in the nerve-cells would underlie the more acute early manifestations, viz., sleeplessness combined with mild delirium. For there are two things in the nutritive sphere to consider, viz., (a) the intra-cellular (stored) nutritive material, built up during sleep, and available during waking activities; and (b) the lymphatic food-material circulating in the lymph which bathes the nerve-cell, but which the cell can *assimilate only at a certain slow rate*. The undue stimulation of the nerve-cell by excess of any sort (over-exertion, alcoholic excess, sexual excess, etc.), gradually exhausts it of the intra-cellular (stored) nutritive material. Beyond a certain stage, therefore (optimum stage), there is a gradual decline of the average nerve-tension within the cell. The decline of such "nerve-tension" (using the valuable phrase of Mercier) is the *nervous condition of which the feeling of fatigue is the psychical accompaniment*. In health, therefore, the individual now sleeps, and the nerve-substance is rebuilt and tension restored. In the alcoholic subject, however, the fatigued nerve-cell is the subject of stimulation by the alcohol still circulating in the blood till sufficiently eliminated by the kidneys, etc. The nerve-cell is thus stimulated beyond its average limits, and at a greater pace than in health. The result is a quickness, rapidity, and overflow of ideas and action at first, and then a rapid development of fatigue and drowsiness, i.e., exhaustion of the nerve-cell. But when the poisoning is greater in degree, the fatigued nerve-cell is further damaged. It is fatigued to such an extent that the individual falls down helpless and drowsy. But it is not recuperating, rebuilding its intra-cellular nutritive store. The alcoholic poison is still circulating in the system in sufficient amount to excite the fatigued nerve-cell; the

drowsy down-struck patient is in a state of mild delirium; subconscious, but with a continuous and distressing whirl and turmoil of nerve-current throughout the whole brain.

Such a mild delirium lasting for a few hours produces marked brain exhaustion; a repetition of such attacks of insomnia, with mild delirium, after a time damages the nerve-cell to such an extent that its nutrition is *permanently* altered. Co-extensive with such feeble nutritive power are the dynamical changes in the nervo-protoplasmic apparatus we have before mentioned. The preponderance of this or that set of changes in this or that cortical region determines the local manifestations of chronic alcoholism. He had elsewhere ("Brain," 1894) correlated these more fully with clinical and psychological manifestations; there it need only be stated, in conclusion, that the whole series of early changes, viz., *insomnia, with mild delirium, amnesia, incapacity for attention and mental exertion, easily induced fatigue, and the muscular weakness and tremor* have a demonstrable pathological basis in which nutritive and dynamical changes are progressive; further, that the repeated insomnias with more or less frequent attacks of delirium or depression with confusion of ideas which mark the onset of so many of the other insanities (non-alcoholic), all combine to show us that these also pass through prodromal stages comparable to those of chronic alcoholism. He ventured to think that the progress of psychiatric medicine would not be served by calling the insanities "functional" diseases; it turned our eyes away from the morbid nutritive and structural changes underlying a great many of them, and which with more fortunate methods of investigation at home and abroad we are now more and more able to recognize where our predecessors failed. There can be no doubt that neurological science, especially within the decades following 1870, has been steadily narrowing the area of our ignorance concerning the whole host of diseases of the brain and nervous system, and he felt sure that year by year we would be able to base the symptoms, the prognosis, and the treatment of the insanities more firmly on the only foundations on which they can be based, viz., a more definite and extended knowledge of the anatomy, the physiology, and the pathology of the brain and nervous system.*

* For further account of Dr. Andriezen's researches, illustrated by drawings and photographs, see "Brain" (winter, 1894).

A Demonstration of the Abnormalities of the Brains of two Microcephalic Idiots. By D. J. CUNNINGHAM, M.D., D.C.L., Professor of Anatomy in the University of Dublin, and TELFORD SMITH, M.D., Royal Albert Asylum.

This demonstration was given in Professor Cunningham's class-room, and a full description of the clinical and pathological aspects of the cases will be given in due course.

A Demonstration Illustrating the Development of the Cerebral Sulci in the Human Brain. By D. J. CUNNINGHAM, M.D., D.C.L., Professor of Anatomy in the University of Dublin.

Professor Cunningham showed with the lantern, photographs of a series of beautiful preparations of foetal brains, pointing out the order and relations of the appearance and disappearance of the transitory sulci, and of the appearance and development of certain of the more important permanent sulci. The work shown was a continuation of Dr. Cunningham's well-known researches in cortical topography and development, and will no doubt soon be published in monograph form. The demonstration was most lucid, and Dr. Cunningham received the thanks of the members for this interesting exhibition of the work he is doing in this department.

In this and the other lantern demonstrations given at the School of Physic, Professor Cunningham's assistant, Dr. Dixon, was so kind as to attend to the management of the apparatus, and contributed very materially to the success of the exhibitions by the skill with which he conducted his share of the work. The kindness and helpfulness of everyone connected with the School must be gratefully acknowledged. The Association was received though the Session was still going on, and though the medical degree examinations were in full swing, so that the inconvenience occasioned to the professors and demonstrators must have been considerable, but the strangers were certainly not made conscious of it.

REST AND EXERCISE IN THE TREATMENT OF ACUTE INSANITY.

Dr. CLOUSTON read a paper on rest and exercise in the treatment of acute insanity.

Dr. BATTY TUKE—I think this question so important that it cannot be discussed in a few minutes. It opens up such a wide field that I think that the best course would be to move an adjournment of the debate, so that it may be more fully dealt with.

The PRESIDENT—I am, of course, in the hands of the Association with regard to the question of adjournment which has been suggested by Dr. Batty Tuke. But I beg to say that we have on the programme for to-morrow a discussion of the very first importance, and we have four papers, excluding that of Dr. Elkins, who has asked me to allow him to withdraw. Therefore, I can hardly see my way to hold out a hope of allowing the present discussion to be deferred, unless there is a very strong wish expressed to that effect by the Association.

Dr. BATTY TUKE—The discussion opens up the whole question of anatomy and physiology. In the course of a series of lectures recently delivered in Edinburgh, I devoted my attention entirely to one class, namely, the class of incipient insanity due to over-exertion. I went as far as my light, into the pathology and physiology of the condition. I hold that when the brain is in a diseased condition you must apply to it the same means of treatment which we apply to any other organ of the body. And the treatment which I find most efficient is perfect rest. I wish it were the practice of our specialty, as it is the practice of other specialties, to publish long series of cases. I wish it were possible,

because, if it were, I think that I could produce a series of well authenticated cases in support of my contention.

Dr. MERCIER—An arrangement has been made to adjourn this meeting to Bristol, when it will be resumed in July, and the matter might be re-opened then.

The PRESIDENT—A more important subject in practical therapeutics has not come before the meeting, and I think that the suggestion of Dr. Mercier is a very important one.

Dr. LAWLESS—I would be hard on some who might not find it convenient to attend at Bristol to adjourn the matter to that meeting, and I suggest that we should adjourn the debate to some other period of this meeting.

Dr. NICOLSON—It is unfortunate that time does not permit a full discussion of the views which have been promulgated, but if the matter is allowed to stand over until next year, Dr. Batty Tuke will raise the question by reading a paper himself, so that we may be in a position to go into it much more fully. I beg to move that the matter be adjourned until the next Annual Meeting.

Dr. URQUHART, in seconding the motion, said that they would all agree that such a discussion would prove of practical importance, and that they would await the results of Dr. Batty Tuke's experience with deep interest.

The PRESIDENT—I don't see that I could accept this motion proposed by the President-elect and seconded by the Secretary for Scotland, because I think that if one member—especially a member of the distinction of Dr. Clouston—brings forward a subject, it is not treating him with proper courtesy to defer the whole matter for a year, and then ask another member to bring up the subject and treat it as he thinks fit, and treat it probably on different lines from those on which it was originally introduced by the first member.

Dr. CLOUSTON—As regards myself I in no way feel that it is a discourteous precedent to adjourn the matter. I should have been glad to have gone on with it, but if circumstances are against us, and it can be put off till next year, I have no objection. My object, and my only object, was to bring this matter, in a scientific manner, before a practical Association.

The PRESIDENT—I have no hesitation in deferring the matter after hearing these remarks from Dr. Clouston. It is, therefore, deferred until next year, to be reintroduced by Dr. Batty Tuke. The members are to understand that the postponement and rearrangement are due to the courtesy of Dr. Clouston.

INSANITY AND RACE DECAY.

Dr. ANDRIEZEN read a paper upon insanity and race decay, which is to be published in the "British Medical Journal."

The PRESIDENT—Had time permitted I should have liked to have spoken on many of the interesting points which Dr. Andriezen has raised, and I know that the members generally were anxious to express their opinions on these subjects. I very much regret that, owing to lack of time, we cannot do so at present. But I feel that I am justified in offering Dr. Andriezen the special thanks of the Association for the work which he has done for this meeting. I refer not merely to this paper, but to his magnificent laboratory work which we had the pleasure of seeing yesterday afternoon. Personally I feel towards him that esteem which one feels for a man who has satisfied one's ambition. It was my ambition that at our meeting this year some of our younger members should make their mark; and I can confidently say that Dr. Andriezen has done so.

OTHER PAPERS.

In addition to the foregoing papers and discussions Dr. OSWALD had prepared a report on "Multiple Neuritis, with Mind Involvement," which will be published in the "Glasgow Medical Journal;" and Dr. ELKINS "On Twenty-eight Cases of General Paralysis occurring in Women," which has been published in the "Lancet."

PART II.—OCCASIONAL NOTES OF THE QUARTER.

The Annual Meeting. . . . .	685

The scientific and practical work accomplished at the Fifty-Third Annual Meeting at Dublin amply realized the most sanguine anticipations, and the success achieved marks an epoch in the history of the Association. The first time the Association met in Dublin, under the presidency of the late Dr. Lalor, there was a small gathering out of a membership of some two hundred. After the lapse of thirty-three years the membership has more than doubled, and the attendance was not confined to a narrow circle, but was representative of the most distant parts of the kingdom, of Europe and America. It included the leading physicians and surgeons of the Irish capital. In place of meeting in a Sackville Street Hotel the Association was received in the Halls of the College of Physicians, and made welcome to use the handsome class-rooms of Trinity College.

When it was proposed to extend the Annual Meeting over several days there were those who doubted the expediency of such an undertaking. And it will, undoubtedly, be no easy task to maintain the high level of excellence at which the President inaugurated the new era. The founders of the Medico-Psychological Association had high aims, and if in the earlier days of its history there were no four-day meetings with demonstrations and exhibits such as engrossed our attention in June, it should not be forgotten that the strenuous workers and leaders of our specialty were even then preparing the way for results which are as yet inconsiderable compared with those the future will reveal; and that, with the further development of our branch of science, and the fuller recognition of its claims, we have ever fresh incentives to more splendid achievement.

On looking over the report of the meeting of 1861 we find that the introductory part of the proceedings was Dr. Bucknill's address as retiring President, and that he concluded it by "venturing to anticipate that, as a consequence of that meeting, they would be able to make no inconsiderable advance in their specialty." Fresh from another Dublin

meeting, where the vote of congratulation to Sir John C. Bucknill, full of years and honours, was hailed with acclamation, we can fitly re-echo his valedictory words of so many years ago.

The Annual Meeting has made important changes in the official ranks of the Association, notably so in the resignation of Dr. Paul, after his long service as Treasurer. His interest in the duties of his onerous position is not a whim of yesterday, nor has it diminished with the flight of time. The vote of thanks accorded to him by the meeting was no mere formality, but an expression of hearty goodwill elicited by many kindly memories.

This Journal has also suffered serious loss by the resignation of Dr. Savage, co-Editor for the past sixteen years. At the Dublin Meeting the survivor spoke feelingly of the official severance from his colleague (p. 688).

It is to be regretted that time did not permit of the completion of the programme prepared for the meeting. Valuable papers were held as read, and discussion on various points of interest was impossible. Full reference to these papers is given in the foregoing report; and it will be observed that the present number of the Journal is devoted to the record of the transactions of the Annual Meeting, and that the papers and discussions have been grouped in such a manner as to facilitate reading and reference.

That Dr. Conolly Norman would read a Presidential Address of the highest merit—a reflex of his cultured mind—no one could doubt; but his labours on behalf of the Association were not limited to the production of an Address, however able. He awakened an enthusiasm, and enlisted a sympathy with the objects of the Association, that brought together on common ground labourers in the divers fields of medicine, and concentrated their efforts on the work which the Association has taken in hand. His complete arrangements and cordial welcome left an impression of Irish hospitality which cannot be readily effaced, and his energetic leadership will render somnolence impossible.

PART III.—NOTES AND NEWS.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

FIFTY-THIRD ANNUAL MEETING.

The proceedings in connection with the fifty-third Annual Meeting of the Medico-Psychological Association of Great Britain and Ireland commenced on Tuesday, June 12th, in the Royal College of Physicians, Kildare Street, Dublin. In the morning, at 9.15, a Council Meeting was held, and this was followed at eleven o'clock by the General Meeting for the election of officers, transaction of business, etc. At the General Meeting, Dr. Murray Lindsay, the outgoing President, occupied the chair, and there was a good attendance, among those present being:—Drs. Conolly Norman (President-Elect), Robert Baker, Fletcher Beach (Hon. Secretary), Frank A. Elkins, R. Percy Smith, J. Beveridge Spence, D. Hack Take, Jas. Rutherford, Chas. Mercier, Arthur Finegan, A. R. Urquhart, A. R. Turnbull, Ringrose Atkins, Samuel H. Agar, Telford Smith, John Curwen, R. Fletcher, J. G. M. Finch, A. Law Wade, F. Sidney Gramshaw, Alexander Patton, W. Lloyd Andriezen, Daniel F. Rambaut, Henry Cullinan, Oscar Woods, La' del R. Oswald, T. S. Clouston, David Nicolson, W. F. Robertson, John Keay, E. B. Whitcombe, George R. Lawless, W. H. Middleton, W. H. Garnett, T. W. McDowall, J. T. Callcott, G. M. Robertson, John Eustace, James Cameron, and Geo. R. Cope.

The PRESIDENT said, before commencing business, that he ought to mention that some distinguished visitors were present. They had Drs. Rohé and Curwen from America, Semelaigne from Paris, Morel from Ghent, and Professor Benedikt from Vienna. The members of that Association felt honoured by the presence of these associates and guests, and accorded them a hearty welcome.

The HON. SEC. then read the minutes of the previous Annual Meeting, held in July, 1893, at Buxton, also the minutes of the adjourned Annual Meetings, held on Thursday, November 16th, 1893, and on 15th February, 1894, all of which were adopted.

ELECTION OF OFFICERS AND COUNCIL.

Letters tendering their resignation had been received from Dr. Paul, Treasurer, and Dr. Savage, co-Editor of the "Journal of Mental Science." Dr. Paul's was as follows:—

The Terrace, Camberwell, June 7, 1894.

Mr. President and Gentlemen,—I have on several occasions doubted whether the time had not come to resign my long-held office of Treasurer; but have been persuaded by kind friends to continue in office longer. The time, however, has now arrived when I consider I should not delay, after more than thirty years' tenure of office, resigning the trust you have placed in my hands.

In doing so, I confess it to be somewhat of a wrench after so long a period of friendship with members of our specialty; but there are younger men, I doubt not, who will ably serve the Association, although none with a greater desire to promote its interests. Though resigning my office, I shall continue to entertain every good wish for the advancement and prosperity of the Association.

Thanking you for the confidence you have so long reposed in your Treasurer,

I am, Mr. President and Gentlemen,

Yours very faithfully,

J. H. PAUL.

Dr. Savage wrote:—

3, Henrietta Street, Cavendish Square, June 2, 1894.

Dear Dr. Beach,—The time has come, after sixteen years, to resign my assistant or co-Editorship of the "Journal of Mental Science." I fear I have been of little active use, but have had the greatest pleasure and satisfaction in being so long associated with Dr. Hack Take, and my one real regret is that the pleasant link is now severed.

The times are changing, and the junior editors should be younger men than I, and men more in contact with the asylum life which binds the Association together. With thanks to the Association for recognizing my desires to serve it in allowing me to be joint Editor of the Journal,

I am, yours very truly,

GEO. H. SAVAGE.

The **PRESIDENT** said this would affect the voting papers, which were in their hands, as these two names appeared in the printed voting lists. The Council met that morning and considered the matter, and thought it would be wisest to hold another Council meeting on Thursday morning. Then there would be an adjourned general meeting on the same day to consider the recommendation of the Council with regard to filling up these two posts. It would then be competent for any member to make any remark upon this subject or confirm what the Council had decided on.

The meeting having sanctioned this course,

The **PRESIDENT-ELECT** begged to propose that the meeting records the sense of its sincere regret at the loss of Dr. Paul, who had been Treasurer for more than thirty years, and had done such excellent work for it. They all recollected with great satisfaction the genial and admirable manner in which he performed his duties, which were occasionally disagreeable, and he was sure that the members would unite in expressing great regret at the loss of Dr. Paul's long services.

The **GENERAL SECRETARY** had great pleasure in seconding the resolution, which was passed by acclamation.

Dr. **CLOUSTON** said one could not help regretting that the time had come to propose a vote of thanks to Dr. Savage for the admirable work which he had done. They all knew his strong individuality, and how he had placed his valuable services at their disposal as Joint Editor of their Journal. No one knew better than he (Dr. Clouston) did the amount of work such an office required. The Association had derived the benefit of Dr. Savage's name and reputation, and they all knew that what he had written for the Journal had always been well worth reading. He therefore proposed a hearty vote of thanks to Dr. Savage for his services, and an expression of regret upon the part of that Association that he should have resigned.

Dr. **NICOLSON** had much pleasure in seconding this motion.

Dr. **HACK TUBE** said before the motion was put to the meeting he should like, as the colleague of his friend Dr. Savage, to express his own feeling; and to add that, owing to Dr. Savage's excellent temper and imperturbable good humour, not the slightest friction had arisen from the beginning to the end of the chapter.

The motion was passed by acclamation.

Dr. **CLOUSTON** asked would it not be a convenient course in future for officers resigning their positions to do so in time to have their resignations placed upon the agenda. He thought that this would be in accordance with the spirit that pervades the new Rules, and tend towards the harmonious working of the Association, while it would afford each member an opportunity for the consideration of matters of such importance.

The **PRESIDENT** thought that there was no doubt as to the wisdom of Dr. Clouston's suggestion. But it had not been practical in the present case, as they had received one resignation only a few days ago.

Dr. **CLOUSTON** explained that his remarks were not intended as a reflection in any way.

Dr. **OSCAR WOODS** said that he did not quite agree with Dr. Clouston. He thought that it was to the General Meeting, and not to the Council, that resignations should be sent. Now that their Annual Meetings extended over one day, there was no necessity to hurry these matters, and it was better to let them have an opportunity for discussion. He thought that it would elicit the opinions of the Association more generally if resignations did not come in until the time of the General Meeting.

Dr. **SPENCE** said that as Dr. Woods disagreed with Dr. Clouston, so he quite disagreed with Dr. Woods. He thought that important appointments of this sort should not be made until the entire body of the Association had had an opportunity of expressing their views upon the subject.

The **PRESIDENT**, after explaining that there was no doubt, according to the

Rules, that the Council had power to appoint *pro tem.* to offices becoming unexpectedly vacant, announced that they were about to proceed to the election of the President and other officers; but asked what they should do about the Treasurer and co-Editor.

Dr. SPENCE proposed that the two names (Drs. Paul and Savage) should be withdrawn from the paper, and the further consideration of the matter put off till the adjourned Annual Meeting which they proposed holding at Bristol.

Dr. WHITCOMBE seconded this motion.

The PRESIDENT—Is it your wish that we proceed to vote for all the officers with the exception of the Treasurer and co-Editor, and that the election of these two officers be deferred till the meeting at Bristol?

Dr. CLOUSTON proposed as an amendment that they should vote for all the officers at the present meeting except the two already mentioned, and that they be voted for on Thursday morning.

Dr. ATKINS seconded this proposal.

Dr. MERCIER had no doubt that it was legally competent for them to elect these officers that day, and certainly it was competent for them to do so upon Thursday. But what was legally possible was not always desirable. In the case of offices of such importance as Treasurer and Editor it was always most desirable that the entire Association should have an opportunity of having a voice in the election. At the present time they had not that opportunity. It was unknown to members generally that changes were about to be made.

Mr. WHITCOMBE quoted the rule upon the subject, which stated that notice must be given not less than two months before the Annual Meeting.

The PRESIDENT—According to your showing that would militate against the meeting at Bristol in July.

Dr. ATKINS said that the Council, who had full knowledge of the requirements, would nominate gentlemen to the posts who would be accepted by the Association afterwards.

The PRESIDENT said that there was no difference of opinion with regard to voting for the officers that day, with the exception of the Treasurer and Editor. If the rule was to be observed they could not vote for these two officers at the Bristol meeting. Rule 14, page 10, gives the Council power to elect a member *pro tem.* to fill such a position.

Dr. CLOUSTON said that seemed to open a *via media*. He moved "That, in accordance with their Rules, the Council appoint officers in place of those who have resigned for a period of twelve months, the permanent appointment to be confirmed at the next Annual Meeting."

Dr. CONOLLY NORMAN seconded the motion, which was adopted.

Dr. URQUHART asked for the Chairman's ruling with reference to Rule 2, page 9, with regard to members retiring. The Rule, he said, set forth that six Members of the Council should retire each year in rotation, and should not be eligible for re-election until the Annual Meeting after that at which they retired. Now they were asked to vote for Dr. Rutherford, whose name had been removed and replaced.

The PRESIDENT—Was Dr. Rutherford on last year?

Dr. URQUHART—Yes.

The PRESIDENT—Then certainly, according to this Rule, he would not be eligible.

Dr. URQUHART—Do you rule that Dr. Rutherford is not eligible?

The PRESIDENT—Most certainly I do.

Dr. URQUHART—Then, is it in the right of any member present to make a suggestion?

The PRESIDENT—Certainly.

Dr. MERCIER explained that the case of Dr. Rutherford was a peculiar one. He had not served his full time, but had been put on in the place of some gentleman who had retired in the middle of his term of office, and therefore it was considered he did not come under this Rule.

The **PRESIDENT**—I still maintain that Rule 2, page 9, would be transgressed.

Dr. **SPENCE** stated that when the matter was brought forward at a former meeting the opinion was that in the circumstances Dr. Rutherford would be eligible.

The **PRESIDENT** said that he could not depart from the position which he had taken up.

Dr. **URQUHART** then suggested that Dr. Yellowlees be substituted for Dr. Rutherford, as this was a vacancy affecting Scotland.

The **PRESIDENT**, after a ballot had been taken in due form, announced the election of officers and Council as follows:—

<i>President</i>	. . . .	CONOLLY NORMAN, F.R.C.P.I.
<i>President-Elect</i>	. . . .	DAVID NICOLSON, M.D.
<i>Ex-President</i>	. . . .	JAMES MURRAY LINDSAY, M.D.
<i>General Secretary</i>	. . . .	FLETCHER BEACH, M.B.
<i>Editor</i>	. . . .	D. HACK TUKE, M.D.
<i>Registrar</i>	. . . .	J. B. SPENCE, M.D.
<i>Auditors</i>	. . . .	{ H. HAYES NEWINGTON, M.R.C.P. HENRY RAYNER, M.D.
<i>Divisional Secretary for Ireland</i>		CONOLLY NORMAN, F.R.C.P.I.
<i>Divisional Secretary for Scotland</i>		A. B. URQUHART, M.D.

Members of Council.

T. OUTTERSON WOOD, M.D.	W. I. DONALDSON, M.B.
F. A. ELKINS, M.B.	G. E. SHUTTLEWORTH, M.D.
H. T. PRINGLE, M.D.	E. B. WHITCOMBE, M.R.C.S.
A. B. TURNBULL, M.B.	L. A. WEATHERLY, M.D.
C. A. MERCIER, M.B.	D. M. CASSIDY, M.D.
E. W. WHITE, M.B.	G. REYINGTON, M.D.
H. STILWELL, M.D.	E. POWELL, M.R.C.S.
A. D. O'C. FINEGAN, L.R.C.P.I.	W. F. MENZIES, M.D.
C. S. MORRISON, L.R.C.P.I.	S. A. K. STRAHAN, M.D.

Dr. **URQUHART** said he supposed that must be accepted; but it was a very unfortunate thing for Scotland that their representative had been rejected. He thought that if it had been understood that Dr. Yellowlees was to be a representative for Scotland they would have had a majority.

Mr. **WHITCOMBE** pointed out that in this matter there was not the slightest slur on Dr. Rutherford.

Dr. **SPENCE** said he did not think that affected the point that Scotland did not get its fair representation on the Council.

ELECTION OF ORDINARY MEMBERS.

The **PRESIDENT** announced the following names of candidates for election as ordinary members, and appointed the following scrutineers:—Drs. Whitcombe, Finch, Atkins, and Turnbull. The voting in connection with candidates for ordinary membership was then proceeded with.

James Vincent Blachford, M.B., B.S.Durb., Assistant Medical Officer, Bristol Asylum, Fishponds, near Bristol.

James Denham Bradburn, L.R.C.P., F.R.C.S.Edin., Lancelyn House, Leamington Spa.

Alfred Walter Campbell, M.D.Edin., Pathologist, County Asylum, Rainhill, near Prescott, Lancashire.

Eleonora Lilian Fleury, M.D., B.Ch., R.U.I., Clinical Assistant, Richmond Asylum, Dublin.

Samuel Graham, L.R.C.P.Lond., Assistant Medical Officer, District Asylum, Belfast.

Hugh Richard Ker, F.R.C.S.Edin., M.R.C.S.Eng., L.R.C.P.Edin., Tintern, 2, Balham Hill, London, S.W.

Alexander McWilliam, M.B.Aber., Senior Assistant Medical Officer, Somerset and Bath Asylum, Wells.
 Thomas George Stevens, L.R.C.S.I., L.R.C.P.I., Assistant Medical Officer, Central Asylum, Dundrum, Ireland.
 Guy Mills Wood, M.B.Durh., Assistant Medical Officer, County Asylum, Rainhill, near Prescott, Lancashire.
 Sir Henry W. Aoland, Bart., K.C.B., M.D.Oxon., Regius Professor of Medicine, University of Oxford, Oxford.
 Harold Cecil Halsted, M.D.Durh., Assistant Medical Officer, London County Asylum, Hanwell.
 Cyril B. Crawford, M.R.C.S.Eng., L.R.C.P.Lond., Trohook, Langley Avenue, Surbiton.

Dr. RINGROSE ATKINS proposed that the names be voted for *en masse*; and this course having been adopted,

The PRESIDENT said that he was sorry to announce that there had been five adverse votes, which would necessitate their balloting for each member individually.

Dr. ATKINS suggested that there might have been a mistake, and

The names were again voted for *en masse*, but there being again five adverse votes,

The PRESIDENT said it could not be, as they at first supposed, a matter of accident.

It was then decided to vote for each candidate separately, with the result that all were elected; but with regard to Dr. Eleonora Lilian Fleury

The PRESIDENT said that it was now perfectly evident that the voting on the previous occasion was not a matter of accident. He was happy to say, however, that the lady had been elected in accordance with the rules of the Association, which required that the candidate should secure three-fourths of the total number of members balloting. The total number was 32. There were seven rejections and 25 admissions. Twenty-four would be three-fourths, and Dr. Fleury had obtained one over that number.

REPORT OF THE TREASURER.

Dr. PERCY SMITH—The Treasurer has asked me to report to the Association that the amount received up to May 31st (including a balance from last account of £174 0s. 11d.) is £874 17s. 10d., and that the amount of expenditure to the same date is £674 17s. 11d., showing a balance at that date of £199 19s. 11d. As the financial year of the Association has not yet expired the yearly balance-sheet cannot be prepared and submitted. And then he begged me to state that the present balance at 31st May of £199 19s. 11d. includes £87 2s. 6d. which really belongs to the Gaskell Fund. It will be remembered that last year it was suggested by the Auditors that the amount of the Gaskell Fund should be shown separately from the general accounts of the Association, and that having been done, from 1887 to the present time, there is a balance in favour of the Gaskell Fund of £87 2s. 6d., and it is questioned whether that ought not to be invested in accordance with the trust deed. The Treasurer also asked me to call the attention of the members to the fact that, as the new Rules make subscriptions payable on January 1st instead of July 1st, it will be necessary for members to pay a subscription of £1 11s. 6d. for the period from July 1st, 1894, to December 31st, 1895, or else to pay 10s. 6d. on July 1st, 1894, and a guinea on January 1st, 1895. And it is intended to send out notice accordingly, when the application for subscriptions is made. Well, then, I have to place before you also the report which the auditors have so far been able to make:—"We have examined the Treasurer's accounts to May 31, 1894, with vouchers, etc. We report that we find them correct to that date. We have also to report that in consequence of the early date fixed for the Annual Meeting we have not been able to examine the balanced accounts of the Treasurer for the year 1893-4." The only suggestion

seems to be that this meeting for the purpose of receiving the balance-sheet from the Treasurer should be adjourned, and that the 31st July at Bristol would be a convenient time and place.

Dr. MERCIER asked what money did this sum of £87 2s 6d. represent. Was it the accumulated interest?

Dr. PERCY SMITH, in explaining, said that was a question for the Trustees to answer. It appeared that the Gaskell Fund was founded in 1837. The Gaskell Prize had been given apparently four times, and in one year there were law expenses amounting to £31 odd, leaving two years' interest unexpended.

On the motion of Dr. PERCY SMITH, seconded by Dr. HACK TUKE, it was then decided to adjourn the meeting to the 31st July, at Bristol, in order to consider the balance-sheet and any other matters requiring consideration.

THE KNIGHTHOOD OF SIR JOHN C. BUCKNILL.

Mr. WHITCOMBE said that there was one matter which he thought it would be proper to bring before this meeting. Members of this Association received honours very rarely, but since their last meeting one of their oldest members had received the honour of knighthood. He thought, therefore, that it would be graceful on the part of this Association to congratulate Sir John C. Bucknill on the honour which he had received, and which he so well deserved. He had great pleasure in moving accordingly.

Dr. HACK TUKE, in seconding the motion, said that it must afford great pleasure to others as well as to himself, Sir John's old colleague in authorship, that he had thus been honoured. It would be observed that he received his knighthood entirely in connection with the work he undertook in regard to the origin of the Volunteer movement, and not for the valuable services which he had rendered to the insane, to this Association and their Journal during so many years. Therefore, gentlemen engaging in editorial labours need not expect in consequence to receive any honour at the hands of Her Majesty's Government!

Dr. CLOUSTON could not allow this matter to pass without expressing his approval of the remarks which had been made with reference to Sir John C. Bucknill. He was, in fact, their honoured head, and the Association would join heartily in the expression of their congratulations.

The PRESIDENT said there was but one regret, viz., that Sir John's very great and important labours at a time when this Association was not so well known as at present had not received recognition.

The motion was then adopted with acclamation.

DR. CLEATON'S RETIREMENT.

The GENERAL SECRETARY announced the receipt of a letter from Dr. Cleaton, late Commissioner in Lunacy, acknowledging the communication expressing the regret of the Association on the occasion of his retirement.

VOTES OF THANKS.

Dr. NICOLSON, in proposing a vote of thanks to the Editors, Secretaries, Auditors, Registrar, and Treasurer, said that he was sure they would all award this vote heartily and with a genuine regard to its merits. He therefore moved that the meeting record its very cordial thanks to those various gentlemen for their successful efforts to maintain the dignity and position of the Association.

Dr. RINGROSE ATKINS seconded the motion, which was passed by acclamation.

APPOINTMENT OF EXAMINERS.

The PRESIDENT announced that the examiners appointed by the Council were as follows:—For England, Drs. Mercier and Kaye; for Ireland, Drs. Molony and Finnigan; and for Scotland, Drs. Turnbull and Batty Tuke.

PRIZE ESSAYS.

The PRESIDENT announced that in connection with the competitions for the bronze medal of the Association there were four essays sent in, all of consider-

able merit. But they had no difficulty—in fact they were unanimous in coming to the conclusion that the first place should be given to the author of the essay on “The Degenerative Lesions of the Arterial System in the Insane.” They found that the author was Dr. Cecil Beadles, to whom would be awarded the bronze medal and a prize of ten guineas. The next essay in order of merit was upon “Sulphates in the Urine of General Paralytics,” by Dr. John Turner, and the Council thought that he was well deserving of an additional prize—five guineas.

APPOINTMENT OF COMMITTEES.

The PRESIDENT—The next business relates to the Parliamentary Committee and the Educational Committee. It is proposed to reappoint them for the ensuing year. Has any gentleman anything to say with regard to these two Committees?

Mr. WHITCOMBE said that he had great pleasure in proposing that the Parliamentary Committee and the Educational Committee be reappointed. He did not know that the Parliamentary Committee had done anything during the past twelve months; but the Educational Committee was most useful, and had done a great deal of good work.

Dr. PERCY SMITH seconded the motion, which was adopted.

THE EDUCATIONAL COMMITTEE.

Dr. CLOUSON said, as Chairman of the Educational Committee, he begged to report that they had not been idle, but had been doing good work. They did not wish, however, to submit a detailed report until matters had been put into shape. They had, however, communicated with several bodies and received courteous replies; they had, in fact, been carrying on the general work of the Committee.

THE CERTIFICATE OF PROFICIENCY IN NURSING.

Dr. SPENCE (Registrar), who submitted the report upon the May examinations for the certificate of proficiency in nursing, said that he had received many letters asking for particulars with reference to these examinations, and therefore he had statistics prepared showing that at the last examination there were 356 applications for examination received, of whom two withdrew, making a total of 354 candidates who presented themselves for examination. The candidates were drawn from 29 asylums (19 English, eight Scottish, and two Irish), and there was in addition one man who was engaged in private nursing, who was examined at the Birmingham City Asylum, Winson Green. Returns had been received from each of the 29 asylums except the District Asylum, Maryboro', Ireland. The number of certificates granted amounted to 281, or (deducting the number of candidates from Maryboro' Asylum) a percentage of 83.63 on the total number examined—English Asylums 81.82, Scottish Asylums 87.14, Irish Asylums 100.00. The number of failures amounted to 55, or (deducting the number of candidates from the Maryboro' Asylum) a percentage of 16.37 on the total number examined—English Asylums 18.18, Scottish Asylums 12.26, Irish Asylums *nil*. Altogether there had been 787 certificates issued to this date, and one attendant's name had been removed from the register. He thought it was evident that this matter of examination of nurses and attendants had been taken up very warmly by superintendents throughout the United Kingdom. In his own case they passed all their candidates, and he had never read better papers. He believed that the *ritæ roce* examination was excellent as well. Speaking for himself and for two other asylums he thought the passes were quite deserved, and the test a good one. At Durham they only passed 13 out of 26 candidates—50 per cent. At the Criminal Asylum at Broadmoor they passed 65 per cent., and so on. On the whole he thought that they had proved the necessity for these examinations and that the result had been highly satisfactory.

The PRESIDENT said that these results must be considered highly satis-

factory, and the fact that a fifth of the total number of candidates had been rejected showed that the examination was not a farce. The nursing certificate was growing in favour, and this fact must be gratifying to Mr. Whitcombe, who was mainly instrumental in establishing the system.

COLONIAL DIVISIONS.

The PRESIDENT said that there was a motion on the paper in the name of Dr. Ernest White, and that Dr. Hack Tuke would speak for him.

Dr. HACK TUKE explained that he had received a letter from Dr. Ernest White expressing regret that he should be unable to be present at the meeting and bring the subject to which the resolution standing in his name referred before them. Dr. Ernest White had for some years past been anxious to aid in the formation of Colonial branches. In such a state of things the title of the Association should be the Medico-Psychological Association of Great Britain, Ireland, and the Colonies. It would be for the meeting to decide whether or not the action of the Council deferring the formation of the Colonial Associations was necessary, and apart from this suggestion it only remained for him to withdraw the motion which stood in his name on the agenda paper, its *raison d'être* no longer existing. He pointed out, however, that in his opinion the right course was for divisions to bear their own expenses, as obtained in the case of the British Medical Association. He (Dr. Tuke) moved that the letter and the matter to which it referred be laid before the Council at the next meeting.

The PRESIDENT-ELECT (Dr. Conolly Norman) seconded the motion, which was adopted.

VOTES OF THANKS.

Dr. Hack Tuke having temporarily taken the chair,

Dr. OSCAR WOODS said that it needed no words to commend to them the motion which he had the honour of proposing, viz., a very hearty vote of thanks to the outgoing President for the way in which he had conducted the business of the Association during the past year. He had the pleasure of attending the meeting in Buxton last year, and everyone present knew that it was one of the most successful meetings ever held in connection with the Association. That meeting was pleasant in every way—pleasant in respect of business, pleasant in respect of excursions—and now that their President was leaving the chair he had the greatest pleasure in proposing that the warmest thanks of the Association be tendered to him for his dignified conduct during his year of office.

Mr. WHITCOMBE, in seconding the motion, expressed his sympathy with the remarks made by the proposer.

The CHAIRMAN (Dr. Tuke), in putting the motion, said, in addition to the remarks made by the mover of the motion, he would just remind the meeting that in consequence of the changes in the Rules, the year had been a very difficult one, and these events had materially added to the arduous duties of the President. He heartily concurred in what had been said in praise of the President's conduct during his whole term of office.

The motion was then passed by acclamation.

The RETIRING PRESIDENT, in acknowledging the vote of thanks, said his most cordial thanks were due to them for this very warm expression of their appreciation of his services. He was fully conscious of his shortcomings. The year had been in some respects an uneventful one, although they had revised their Rules and had allowed ladies to become members. They had also learned that day that their nursing certificate was very much increasing in favour. All these were matters for congratulation. For the rest he might say that but for their consideration and kind indulgence his efforts would have been feeble, and not very successful; but he had trusted to their indulgence, and on all occasions he had received it. It was extremely difficult to be always impartial, and to give at all times a decision that would be acceptable to all. But

he hoped that they would give him credit for this—that he had endeavoured to act according to his light in any decision that he had given.

In the afternoon of the same day, at the College of Physicians, the **PRESIDENT** delivered his Address (see Pt. I., p. 487); after which Prof. Fraser gave a Lantern Demonstration of a case of Porencephaly (see p. 649).

In the afternoon of June 13th the members met in the School of Physio, Trinity College, when Dr. Hack Tuke, in the unavoidable absence of the President, occupied the chair, and

The Rev. Dr. HAUGHTON, on behalf of the Provost and Senior Fellows of Trinity College, the governing body of the Dublin University, attended and gracefully welcomed the members of the Association.

Dr. HACK TUKE, having acknowledged the compliment, requested the Rev. Dr. Haughton to convey to the Provost and Senior Fellows of Trinity the best thanks of the Association.

Highly interesting Demonstrations were given, including one by Dr. Andriezen, and another by Prof. Cunningham.

TEMPORARY APPOINTMENTS BY THE COUNCIL.

At the adjourned General Meeting on the 14th day of June, 1894,

The **PRESIDENT** said—I wish to lay before the meeting a matter connected with the private business of the Association. Members are aware that, owing to the resignation of Dr. Paul, who so long held the office of Treasurer, and Dr. Savage, who has held with great distinction the office of co-Editor, certain changes had to be made. According to the rules, it devolved upon the Council to take action in the matter. The Council, after having appointed a Sub-Committee to aid them, have decided as will be announced to you by the General Secretary.

The **GENERAL SECRETARY** thereupon announced the result of the meeting of Council as follows:—

<i>Treasurer</i>	H. HAYES NEWINGTON, M.R.C.P.E.
<i>Assistant Editors</i>	{ A. R. URQUHART, M.D. CONOLLY NORMAN, F.R.C.P.I. EDWIN GOODALL, M.D.
<i>Auditor</i>	E. W. WHITE, M.B.
<i>Divisional Secretary for Ireland</i>	OSCAR WOODS, M.D.
<i>Divisional Secretary for Scotland</i>	A. R. TURNBULL, M.B.
<i>Members of Council to replace</i>	{ D. YELLOWLEES, M.D. JOHN H. PAUL, M.D.
<i>Drs. White and Turnbull</i>	

In the afternoon of the same day the members attended at the School of Physio, where Lantern Demonstrations were given by Drs. Clouston, Middlemass, W. F. Robinson, Batty Tuke, Telford Smith, and Prof. Cunningham (see Pt. I.).

CONCLUDING BUSINESS (JUNE 15).

Dr. McDOWALL—Our very successful and enjoyable meeting is now approaching its conclusion, and we have been able to meet under the most favourable circumstances as to our own convenience and personal comfort in the College of Physicians, which was most courteously placed at our service by the President and Fellows. And I would suggest that a formal resolution should be passed and conveyed to the President and Fellows thanking them most cordially for their great courtesy and kindness in placing these very fine rooms at our disposal.

The **GENERAL SECRETARY**—I have very great pleasure in seconding the resolution. We have had a most enjoyable meeting in comfortable rooms, and as gratitude has been defined by some as a hope of favours to come, we may express our sense of gratitude and the hope that on a future occasion we may meet here again.

The motion having been passed by acclamation,

The **PRESIDENT** said—It will be my agreeable duty to convey to the President and my other colleagues, the fellows of the College of Physicians, your

kind resolution. I am sure I speak the sentiments of the President and of the fellows of the College in saying that the Association is most heartily welcome in these halls.

Dr. HACK TUKE—As this concludes the business, it has fallen to my lot to propose a resolution to which I am sure you will all heartily respond, and that is that our cordial thanks be given to the President for his courteous and impartial conduct in the chair. This meeting in Dublin was to a large extent an experiment, and there were Cassandras who did honestly believe that with regard to the number of papers brought forward, and the early time at which the meeting was fixed, it would not be a satisfactory one. But I do not hesitate to say, and I am sure you will all agree with me, that it has been a most successful one, and as regards extending the period, it forms a hopeful precedent for the future. We have taken this hint from our cousins on the other side of the Atlantic, and we and they have found it answers to have longer annual meetings than we have had before. One other element of novelty at this meeting in Dublin has been the introduction of microscopical demonstrations on the screen, and they have met with great appreciation and admiration. We have been richly rewarded for coming to Dublin, if it were only on the ground of seeing those beautiful demonstrations. I, therefore, beg to propose formally this vote of thanks, and also to say that we owe a great deal to the General Secretary for his help during this meeting, although as regards the initiation of this meeting, the programme and so forth, the success is really owing to the President.

Dr. G. M. ROBERTSON—I have great pleasure in rising to second this vote of thanks to the President. We all know that he has taken a very great deal of trouble in order to make this meeting a success, and I think I may say it has been an unqualified success. I think that we may assure the President that this meeting will become historical, and that we shall all look back upon it with the greatest pleasure. The very good quality of the papers that we have had has been most gratifying, and, though there have been some of them massacred, I don't think that any criminal responsibility attaches to the President. He has only followed the law of Nature in taking care that there is a sufficient number of excellent survivals. We are also obliged to our foreign colleagues who have given us the benefit of their experience. I come from the Highlands of Scotland, where hospitality is a proverb and a power, but the hospitality of Dr. and Mrs. Conolly Norman, and other friends in Dublin, will be warmly remembered by us for a long time to come.

The motion having been passed by acclamation,

The PRESIDENT, in acknowledging it, said—I have to thank you very much for the kind appreciation you have shown of anything I have been able to do for you during your visit to Dublin. A great German writer has drawn attention to the illogical nature of wedding festivities. He said that a marriage was a great experiment, and that the time for rejoicing was when the experiment proved to be a success, not at the time of its inception. And the same thing might perhaps apply to our new departure with regard to our annual meetings. It remains for us to rejoice when the experiment shall have proved successful. I am, perhaps, not vain when I call myself a young man, and, therefore, it may be that I am a little inclined to be too hopeful, but I have no doubt whatever that this experiment will be a success. Dr. Hack Tuke, in the course of his graceful and kindly remarks, referred to the precedent of our sister Association in America. When I undertook this matter, I was not aware of the distinguished precedent we were following. But I should be the last in the world to be ashamed of following American precedent. Dr. Robertson has referred to the number and interest of the papers which have been read, and I am sorry to say that the number of able papers which have not been read is also very large. And here I must apologize. We were making a new beginning, and accordingly I collected more material than we have been able to undertake; but I trust that my successor in the management of such things will judge them better. Two words more. One is with reference to the demonstra-

tions which we have had at our annual meeting for the first time—I am not speaking of the members of our Association—but I must express my deep sense of obligation to Professor Fraser and to Professor Cunningham for the kindness with which they have placed before us such very magnificent preparations. And I have also to thank our Trans-Atlantic and Continental brethren for coming to the meeting and honouring us with their presence, and contributing to that expanse of the intellectual horizon which, I think, should be one great end of all our studies.

THE ANNUAL DINNER.

The Annual Dinner of the Association was held at the Royal College of Physicians on the evening of Wednesday, June 13th. The following members and guests were present:—The Right Hon. the Lord Mayor of Dublin; the Right Hon. Christopher Redington, Vice-Chancellor of the Royal University of Ireland; the Right Hon. John Atkinson, Q.C.; the Rev. J. Stubbs, S.F.T.O.D.; Dr. J. E. Kenny, M.P.; Professor Edward Dowden; Dr. George Plunkett O'Farrell; Dr. W. G. Smith, President Royal College Physicians, Ireland; Dr. W. Thornley Stoker, President Royal College Surgeons, Ireland; J. M. Colles, LL.D., Chancellor's Registrar in Lunacy; the President Academy of Medicine in Ireland; Dr. Semelaigne; Dr. Jules Morel; Professors Benedikt, D. J. Cunningham, Alec. Fraser, and J. A. Scott; Drs. W. Moore, Gordon, J. Magee Finny, Little, Macan, Ball, W. Thomson, J. W. Moore, C. E. Fitzgerald, W. J. Smyly, Master of the Rotunda Hospital, Hack Tuke, Murray Lindsay, Nicolson, Urquhart, Oscar Woods, Turnbull, Beveridge Spence, Horne, Baker, Whitcombe, Fletcher Beach, Sigerson, Rutherford, Earl, Batty Tuke, Fletcher, Meroier, J. R. Burke, Garner, Telford Smith, Bond, Cameron, Hawtrey Benson, Eustace, Keay, Donelan, Agar, Elkins, Percy Smith, Finch, O'Neill, Nolan, Gramshaw, Cope, Oswald, Molony, Ringrose Atkins, Theodore Stack, T. McDowall, Lockhart Donaldson, Cullinan, Bevington, G. M. Robertson, Arthur Baker, Clouston, Conolly Norman, etc.

The Association was also entertained at the Richmond Asylum by the President and Mrs. Conolly Norman, and a photographic group was arranged, particulars of which will be found on page 709.

ADJOURNED ANNUAL MEETING.

An Adjourned Annual Meeting of the Association was held in the Psychological Section Room, at Bristol, on Tuesday, the 31st of July, 1894, under the presidency of Conolly Norman, F.R.C.P.I.

The President said that the first business was to receive the complete balance sheet of the Treasurer, and he called on Dr. Newington to present it.

Dr. NEWINGTON rose to present the completed balance sheet to the Association, but before reading it he desired to say a few words to give additional testimony to the value of Dr. Paul's long services to the Association. He had, even in the short time since he had been put into office, seen how much care and attention were required, and he could say that Dr. Paul had left everything easy for his successor. Moreover, he had done his work with such tact that though he must needs have had frequently the unpleasant duty of pressing for arrears, he had left behind him the most pleasant feelings. He wished further to say that of late years, since the business of the Association and the number of its members had increased rapidly, it had been necessary for Dr. Paul to look for a little clerical assistance. He had lately found a valuable coadjutor in Dr. Fennings, and he (Dr. Newington) took the opportunity of expressing his appreciation of Dr. Fennings' accuracy and clearness in setting out facts. As for himself, he was deeply sensible of the honour conferred on him, and the Association might rest assured that it would receive his best services. He then made some observations on the balance sheet, explaining some of the figures, as printed on page 698.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

*The Treasurer's Annual Balance Sheet, 1893-94.
Presented at the Adjourned Annual Meeting, 31st July, 1894.*

Dr.	£	s.	d.	£	s.	d.	Cr.	£	s.	d.		
To Balance from last account	174	0	11		By Annual, Special, and Quarterly Meetings	...	...	31	2	6
To Subscriptions (England and Wales, Ireland, and Scotland)	433	2	9		By Expenses of Reporting at various Meetings	...	...	22	10	8
To Sale of Journal	158	8	0		By Editorial Expenses	...	...	6	6	0
To Dividends on Consols (Gaskell's Fund), £1,347 stock	35	19	4		By Printing, publishing, engraving, advertising, and postage of Journal	...	...	423	19	10
To Dividends on Consols (Investment), £306 stock	8	3	4	2	By Index Medicus for 1894	...	...	2	10	0
To Fees received from Examinations for the Certificate of Psychological Medicine—							By Index of Journal	...	...	57	2	10
England	12	12	0		By Sundry Expenses for Printing, Stationery, etc.	...	...	85	14	9
Scotland	47	5	0	59	By Treasurer	...	...	6	6	0
To Sale of Attendants' Handbooks	30	0	0		By Accountant	...	...	6	0	4
To Fees received from Examinations for Attendants, Nov., 1893	9	13	0		By Secretary for Ireland	...	...	3	5	0
May, 1894	43	10	0	53	By Secretary for Scotland	...	...	0	9	5
							By General Secretary	...	...	4	10	9
							By Examiners' Fees, etc. (England)	...	...	13	15	0
							By Examiners' Fees, etc. (Scotland)	...	...	19	19	2
							By Prize Fund	...	...	33	14	2
							By Expenses for Attendants' Examinations	...	...	15	15	0
								32	11	5
								742	15	3
							By Balance in hand, Gaskell Fund account	87	2	6		
							General Fund account	122	16	7-209	19	1
										2952	14	4

R. PERCY SMITH. } AUDITORS.
H. HAYES NEWINGTON, }

J. H. PAUL, TREASURER.

Dr. MERCIER drew attention to the fact that the balance in favour of the Association was steadily diminishing year by year; last year it was less by about £50 than the year before, and this year it was again less by about £60 than it was last year. This was a very serious state of things, and demanded the attention of the Association. Examining individual items, the sum of £22 seemed very excessive for reporting the proceedings of some four or six meetings of the Association. It was at the rate of nearly £4 per diem, and there could be no doubt that the services of shorthand writers could be obtained for less than this. Then there was an item of £85 last year and over £50 the year before for sundry expenses of printing, etc. This was a very large item to put down as sundries, and particulars should be given. The printing for the minor work, the committees of the Association, was on a very lavish scale, and much economy might be effected by the substitution of a manifold apparatus for the summoning of committees. On the other side of the account, the receipts on account of advertisements in the Journal were conspicuous by their absence. He observed that in the copy of the Journal in his hand there were a good many advertisements which he supposed were paid for, and he would like to know what became of the money. Then there was an item of £306 invested. Was that invested last year? In whose names was it invested? Was it the money of the Association, or did it belong to the Gaskell Fund? He would like to know whether the very large sum paid for the printing of the Journal could not be diminished. Are we getting our printing done as cheaply as it can be done?

In reply to various questions asked by Dr. Mercier and other members,

Dr. NEWINGTON explained the apparent shrinking of the income of the Association by pointing out that the figures in the balance sheet were cash transactions, and that it sometimes occurred that money due in one year was not received in time to appear in the sheet. In future a revenue account would be added, and thus not only would actual payments be shown, but also what was due to and by the Association, whether paid or not. He explained that the sum of £306 invested was the accumulation of some years, and was the money of the Association, quite distinct from the Gaskell Fund, and was invested in the names of Trustees, whose names he gave.

Dr. TUXE said that no money was received by the Association for advertisements; the publishing of the Journal was in the hands of Messrs. Churchill.

The balance sheet was unanimously adopted.

The PRESIDENT then announced that the Council proposed that a room be hired at 11, Chandos Street, Cavendish Square, for the use of the Association, and that the General Secretary be authorized to effect the necessary business arrangement on the terms of a yearly tenancy, the rent not to exceed £40; also that the late Treasurer, Dr. Paul, should have the title of Emeritus Treasurer conferred on him; also that a South-Western Division should be formed, and that Dr. Macdonald should be the Honorary Secretary of the Division.

These proposals were unanimously adopted.

The PRESIDENT then called upon Dr. Mercier to move the motion standing in his name.

Dr. MERCIER said that it did not require many words from him in support of his motion. He was of opinion that if the same questions were now put to the judges as those in the McNaghten case very different answers would be given. He therefore begged to move: "That in the opinion of this Association the time has arrived at which it is desirable that the House of Lords should again ask the opinion of the judges as to the questions that ought to be left to the jury in criminal cases in which the plea of insanity is raised, and that the Lord Chancellor be asked to receive a deputation from this Association on the subject."

This was seconded by Dr. WEATHERLY.

Dr. NICOLSON quite agreed with Dr. Mercier as to the importance of the subject, but he strongly urged the undesirability of seeking to move the House of Lords and of appointing a deputation to wait upon the Lord Chancellor by a vote

recorded at a small adjourned annual meeting. He thought that the matter should be more fully and deliberately considered before any active steps were taken, and in his opinion it would be more in accordance with the dignity and authority of the Association if a small Sub-Committee were appointed to go thoroughly into the subject and report to the Association at the next annual meeting, which would be held in London. An opportunity would thereby be afforded for the full discussion of the question. He therefore moved the following amendment: "That in the opinion of this Association the time had arrived at which it is desirable that the subject of the questions that ought to be left to the jury in criminal cases in which the plea of insanity is raised be reconsidered, and that a small Sub-Committee be appointed to investigate the whole subject and report at the next annual meeting of the Association."

This was seconded by Dr. SAVAGE.

Dr. MERCIER objected to deferring the subject for a year. The British Medical Association was going to move in the matter, and he did not think that this Association should be behindhand in taking up the subject.

The President then put Dr. Nicolson's amendment to the meeting.

After some remarks had been made on the number of members voting by show of hands, a division was called for, when it was found that 15 voted for the amendment and six against.

The amendment was therefore declared to be carried.

The President then put it to the meeting as a substantive motion, whereupon

Dr. MERCIER proposed, and Dr. MORRISON seconded, that the word "annual" be omitted.

The substantive motion, with this omission, was carried unanimously.

Dr. NEWINGTON proposed that the Sub-Committee be composed of Drs. Orange, Nicolson, Savage, Mercier, Weatherly, Blandford, Woods, and Yellowlees.

Dr. STEWART seconded, and this was carried unanimously.

This concluded the business.

BRITISH MEDICAL ASSOCIATION.

The sixty-second annual meeting was held at Bristol, July 31st to August 3rd, 1894.

The Section for PSYCHOLOGY was well attended and its interest fully maintained.

President—G. FIELDING BLANDFORD, M.D.

Vice-Presidents—{ S. REES PHILIPPS, M.D.
FLETCHER BEACH, M.D.

Honorary Secretaries—{ C. SPENCER COBBOLD, M.D.
R. S. STEWART, M.D.

In accordance with the intention of devoting the current number of the Journal to the proceedings of the Annual Meeting in Dublin, the report of the proceedings of the above-named Section is deferred to the number for January, 1895.

ASSAULT ON DR. WIGLESWORTH.

Our readers will be aware from the Medical Journals that Dr. Wiglesworth has had a narrow escape from a fatal assault by a male patient in the Rainhill Asylum. It must be some comfort to him to know how widespread has been the sympathy expressed with him in his very serious condition. The satisfaction felt in the favourable course which his illness has happily run is in proportion to the anxiety experienced.

The patient was an Irishman* aged 39, a schoolmaster, who seems to have wandered about America between 1879 and 1886, never keeping situations long,

* For these particulars we are indebted to Dr. Menzies, Senior Assistant Medical Officer of the Rainhill Asylum.

always complaining of people following him and conspiring against him. But before 1879 he seems to have lost his father and brother, and to have been unduly depressed. About 1886 he was admitted into the asylum at Dijon, where he remained for five years, and then escaped. The next year was spent in an asylum in Paris. He again escaped, and eventually arrived at his sister's house in Ireland. He disappeared suddenly, and was found wandering in London. He was brought to Rainhill on the 8th November, 1892. He was always a quiet man in Rainhill, but was looked upon as somewhat dangerous, and was in the refractory ward. The accident occurred in this wise.

Dr. Wigglesworth had spoken to him in the airing court at 11 a.m. on the 7th August. He asked him for his discharge, and Dr. Wigglesworth gave him a temporizing answer. As he turned away the patient struck at him. He was seized by the attendants, and an instrument dropped to the ground. It was an old "hold-fast," evidently long disused and buried. It had been brought in by someone and given to him, for he had not been out of the ward or court for two months. It had been ground to a double dagger edge, and carefully burnished.

After the blow the patient walked quietly away, and afterwards said that he "did it to save the institutions of the country." He frequently asked for Dr. Wigglesworth during his illness, and expressed regret at "having to do it."

As to the wound and operation, it appears that the iron entered in a forward and inward direction in front of the left mastoid process, glanced off the internal surface of the ramus of the jaw, missed the internal maxillary artery, passed through the posterior part of the parotid gland, cutting some fibres of the facial nerve, missed the temporal artery, and at a depth of $2\frac{1}{4}$ inches severed the internal carotid posteriorly and internally to the styloid process, $\frac{1}{4}$ inch from the base of skull. The blood gushed out in a stream, and Dr. Wigglesworth immediately made strong pressure on the vessels of the neck, and walked (110 yards) to his house.

The chief attendant ran for aid, and met Dr. Buss, who reached Dr. Wigglesworth growing faint, at his study door. Dr. Buss maintained the pressure, and when Dr. Menzies came he probed the wound, and made a preliminary exploratory incision. It was at once seen that it was very deep and serious, and Mr. Damer Harrison was telephoned for. Meanwhile Drs. Buss and Hinds kept up the pressure. At 1.5 chloroform was given, and the wound explored. All the branches of the external carotid were found intact. Dr. Hinds kept his finger deep in the wound, and Mr. Harrison dissected down to it past the mastoid, and past the styloid process. Finding no hope of tying the internal carotid, he dissected and ligatured the common carotid, plugged the wound, and dressed it. The duration of operation was $2\frac{1}{2}$ hours. The quantity of blood lost by the accident and the operation was estimated at from 15 to 30 ozs.

Mr. Harrison and Mr. Rushton Parker slept in the house each night for a week, Mr. Harrison for a week longer. The wound was soused with 1 to 20 carbolic at first, but afterwards 1 to 40, and plugged each day. No reactionary or secondary hæmorrhage followed. The bruising of the nerves and muscles about the larynx and pharynx caused some trouble for some days, pain, cough, etc., but eventually cleared up.

One word as to the criminal procedure. The main building is in St. Helen's Borough, and Dr. Menzies desired the Borough Magistrate to come over and remand the patient to Walton Gaol. But the clerk to the Committee wished to establish the right of a County J.P. to act anywhere in the county, so the Chairman remanded him till Dr. Wigglesworth was out of danger. Then Mr. J. Birchall, J.P., remanded him to Walton Gaol as an ordinary criminal. There he was dealt with and sent to Broadmoor in the usual way under 47 and 48 Vic., cap. 64, sec. 2 (1) and (3).

It was obviously desirable to have him dealt with in this way in order to avoid a trial at the Assizes, which moreover would have kept him in suspense three months (*vide* 46 and 47 Vic., cap. 38, sec. 2 (1) and (2)).

In conclusion, we desire to warmly congratulate Dr. Wigglesworth on his recovery, and the Association itself on so valuable a life having been spared.

Obituary.

DR. JUDSON B. ANDREWS.

We regret to record the death of this well-known American physician, the Medical Superintendent of the Buffalo State Hospital. Feelingly have the managers recorded their sense of their loss in the following resolution: "How well Dr. Andrews met the requirements of this most arduous and responsible position is best seen in the great success of his administration. Now, when the present Board must mourn his death, they feel that indeed a great misfortune has happened, and desire to place on record their deep sense of the loss the institution has sustained, and the sincere personal grief which must be felt by all who came in contact with him."

Dr. Andrews was born at New Haven, Conn., in 1834. He taught in a school, until he commenced the study of medicine in the Jefferson Medical College, Philadelphia, in 1857. He resumed teaching in Saratoga County, N.Y., and in this he was engaged when the Civil War broke out. He joined the Still Water Company of Zouaves organized by Col. Ellsworth. On his death he enlisted in the 77th N. Y. Volunteers, and was elected Captain of a Company, and participated in several battles and sieges. In 1862 he resigned his commission on account of poor health, and returned to New Haven, where he finished his medical studies, becoming M.D. in 1863. Soon after he was commissioned assistant surgeon to the 19th Conn. Volunteers, then on duty. During the whole period of active service he followed the fortunes of the regiment, doing duty on the field in immediate care of the wounded. He was one of the first members of the Grand Army of the Republic in the State of New York. After this remarkable career, he became (in 1867) assistant physician in the Utica State Hospital, N.Y., under Dr. Gray. In 1880 he was appointed Superintendent of the Buffalo State Hospital and Lecturer upon Insanity in the Medical College.

English specialists who attended the International Medical Congress at Washington in 1887 will recall his presidency of the Psychological Section on that occasion with pleasure and satisfaction.

In 1892 he was President of the American Medico-Psychological Association.

We quote the following from the "American Journal of Insanity," July, 1892, written, it will be seen, several years before his lamented death:—

"During his professional career he has been a frequent contributor of papers to medical societies and journals. While in the Utica Hospital he was for some ten years the working editor of the 'American Journal of Insanity,' and wrote extensively for its columns.

"Dr. Andrews has been a strenuous advocate of State care of the insane, and aided materially in establishing the present system, which gives promise of greatly ameliorating the condition of this unfortunate class. Under his superintendency at the Buffalo Hospital, the training of attendants as nurses upon the insane was inaugurated and carried to a successful issue, and already six classes of men and women attendants have taken their diplomas. As one of the pioneers in this important movement, the Buffalo school furnished an impetus to, and served to popularize, the systematic training of nurses for the insane in the United States.

"Dr. Andrews is an able, active, energetic worker in his chosen field of labour, the success of his career as a practical alienist being fully attested by the history of the Buffalo State Hospital, as well as by his enviable record at the parent institution at Utica."

Dr. Blumer writes: "Dr. Andrews had been in poor health for about two years. For about a year he has been a sufferer from nervous dyspepsia. From the robust, hale man whom we knew in health, he became emaciated to a marked degree. In June he went to Nantucket, and there becoming worse, had to be removed in July to his home in Buffalo. He bore his affliction with wonderful cheerfulness, and was hopeful to the end."

BARON MUNDY, M.D.

The death of Baron Jaromir Mundy, M.D., of Vienna, in the University of which he was formerly Professor of Military Hygiene, and an Honorary Member of our Association, will recall his memory to many of the older members, while to the majority he is almost unknown, even by name. He died on the 23rd of August, aged 72. Mundy, who was a convert to the non-restraint system, from what he had seen in the English asylums, wrote in the "*Journal of Mental Science*" (April, 1864) in its favour, while translating a paper by Ludwig Meyer defending Conollyism against Casimir-Pinel and others on the Continent, who termed it "The English Swindle." The article was headed "An Oasis in the Desert of German Restraint."* The first occasion on which he read a paper on his pet subject, "The Cottage System," before the Medico-Psychological Association, was at the Annual Meeting of 1863. After a residence of four years in England Mundy made, at the Annual Meeting (October, 1864), a series of proposals as to whether the system of treatment in asylums was satisfactory, including the clinical instruction in mental science; and, further, whether the administrative form of control of asylums, both on the part of the Government and other Corporations, was defective. Here and in other instances the Baron showed his wide views of the general subject of asylum management and treatment. At the same time, he made many references to his personal history. He said that family circumstances had not permitted him till somewhat advanced in years to devote his life to psychological medicine, although he had from youth felt an irresistible attraction to it. After long and patient study of the theory and practice of the science he repeatedly visited many European asylums. The melancholy system under which thousands were swallowed up in asylums attracted him to Gheel as the only part of the world in which nearly 1,000 persons were allowed to live cheaply in free air and liberty in the midst of sane people and their families. Then he became an ardent advocate of non-sequestration and of family treatment through the non-restraint system. Some advance had been made in this direction, but still he maintained that "the present system does not answer satisfactorily to the exigencies of the social, medical, and economical science of our time." Everyone, the Baron said, "had now become accustomed to sneer at mad doctors." His object clearly was to open the way for the cottage system of treatment. By the cottage system, he said, he understood that first carried out by Dr. Bucknill, and followed by good results, and also by Dr. Lockhart Robertson at Haywards Heath. In advocating the Gheel system of caring for the insane, he observed in a lecture, delivered in 1867:—"Here upwards of 1,000 lunatics live free, without restraint, among the ordinary inhabitants, reside with them, cultivate with them the fields and farms, resort with them to church and school, act as nurses for their children, and lead an ordinary, natural family existence, such as we are accustomed to value in our own homes."

A paper Baron Mundy read before the Annual Meeting of the Association (Oct., 1867) on the "Laws of Lunacy in Europe" was especially noteworthy, because, after thanking it for having elected him an Honorary Member, he announced that it was probably the last time he should address the Association "before his retirement from this branch of science."

The last time we had the pleasure of seeing the excellent subject of this sketch was at the Annual Meeting of our Association in 1884. In discussing the President's (Dr. Rayner's) Address he said:—"In regard to the 'cottage' or 'family' system, France stood nearly where it did 20 years ago, although there was much talk there about 'family treatment,' and some attempt at it. Norway, Italy, and Sweden were as before; and he was sorry to say Austria was still behind, except

* It is a curious illustration of how a foreigner may mistake the practices and laws of a nation which he visits that Mundy should write:—"The Parliament has elevated the principle of non-restraint to a legislative Act, whereby the physician who should impose restraint upon the insane is rendered liable to prosecution, and is exposed to the loss of his appointment." (!)

in Vienna. In Germany progress had been made. He called their attention to a report at the Copenhagen Congress relative to the system in question, which was working well on an estate costing about £30,000, which was bought for a lunatic asylum, but where the insane were living in the different houses which had been built before the inhabitants left. These were central infirmaries, but the system was a separate one. The Baron, however, confessed he did not believe such a system could be carried out in England.

Baron Mundy ought to be gratefully remembered and honoured for having devoted at one period of his life so much time and thought to the care of the insane. If his views are not carried out in our country on a large scale, the importance of the segregation of the insane is recognized to a far larger extent than formerly, and the wisdom of the typical asylums of Alt Scherbitz in Germany and Kankakee in Illinois is acknowledged by an increasing number of asylum physicians and architects. We regret to add that the Baron died by his own hand.

EXAMINATION FOR THE CERTIFICATE IN PSYCHOLOGICAL MEDICINE.

The following Candidates were successful at the Examination held on the 19th July, 1894 :—

England.

Examined at Bethlem Hospital, London.

Frederick, Herbert John.	Robson, Francis White Hope.
King, Frederick Truby.	Sheen, Alfred Will.

Scotland.

Examined at the Royal Asylum, Edinburgh.

Begg, William.	Hall, Henry Baker.
Dawson, William Richard.	Middlemass, James.
Farquharson, William Frederick.	Martin, William Lewis.

Examined at the Royal Asylum, Aberdeen.

Anderson, Bruce Arnold.	Gawn, Ernest King.
Cowie, George.	Scott, George Brebner.

The following were the written questions :—

1. Describe the physiognomy in the chief forms of Mental Disease.
2. What is meant by Imbecility? Distinguish Imbecility from (1) Idiocy, (2) Dementia, and (3) Stupor. What legal formalities are necessary for placing an Imbecile under care?
3. Describe the mental character of Epilepsy, and the excitement succeeding seizures.
4. Describe (a) the general and (b) the medicinal treatment you would adopt for (1) Acute and (2) Chronic Alcoholic Insanity.
5. Describe the psychosis known as "Katatonia;" discuss the views now held as to its being regarded as a separate morbid entity.
6. Describe a case of Puerperal Melancholia; give treatment and prognosis.

The next Examination will be held in December, 1894. Due notice of the date will be given in the "Lancet" and the "British Medical Journal."

WINNER OF THE BRONZE MEDAL AND PRIZE OF TEN GUINEAS.

Cecil Fowler Beadles, M.R.C.S., L.R.C.P., London, Assistant Medical Officer, London County Asylum, Colney Hatch.

A Special Prize of Five Guineas was awarded to John Turner, M.B., C.M., Aberdeen, Assistant Medical Officer, Essex County Asylum, Brentwood, for the excellence of his essay.

There was no entry for the Gaskell Prize.

EXAMINATION FOR THE CERTIFICATE OF PROFICIENCY IN NURSING.

At the May Examination for this Certificate 354 Candidates presented themselves for Examination. Of this number 299 were successful, and 55 failed to satisfy their Examiners.

The following is a list of the successful Candidates:—

Criminal Asylum, Broadmoor.—*Males*: Samuel C. Brown, Charles Bishop Coleman, Mark Devenish Gorton, Stephen A. Gardner, Charles Howard, William John Prout Hicks, Alfred George Holdaway, John Hunt, James Chas. William Hughes, James Johns, William Arthur James, Charles Kelloway, Frederick Norfolk, Roderick McKay, Robert Milne, Charles Rose, Matthew John Rich, Joseph Robinson, Samuel Smith, jun., Edward Stokes, Frank Slyfield. *Females*: Emma Clarke, Annie Sophia Froude, Ann Meldrum, Ellen Eliza Parker.

Winson Green Asylum, Birmingham.—*Males*: William Baker, James William Brindley, John Oliver. *Females*: Eliza Edmunds, Lizzie Warren, Lucy Williams Wood.

Rubery Hill Asylum, Birmingham.—*Males*: Walter Millward Clews, William Startin. *Females*: Lizzie Adams, Ellen Cox.

Bethnal House Asylum, London.—*Females*: Helen Grace Greenwood, Mary Henson, Minnie Lee, Florence Mann, Lucy Rickards, Mary Turner.

City of London Asylum, Stone.—*Males*: Frederic James Blake, Peter Dunn, James Gower. *Females*: Louisa Dunlevy, Caroline Price.

Derby County Asylum, Mickleover.—*Males*: George Blood, George Borrill, John William Curtois, Joseph Caborn, Arthur Dean, William Davis, Frank Harrison, Charles Markham, Henry Metcalfe, John Presland, Walter Stanley, George Stenton, Walter Thorold. *Females*: Sarah Bowker, Emma Merriman, Mary Ann Pearson, Mary Pidd, Julia Smith, Charlotte Ward.

Durham County Asylum, Winterton.—*Males*: Henry William Bradley, Joseph Denmead, Charles Edward Durrant, George Ford, Timothy Geraghty, John Ward. *Females*: Edith M. B. Kock, Alice Powell, Margaret Smith, Emily St. Quintin, Annie Thomson, Isabella Thompson, Ella Woodin.

Exeter City Asylum.—*Males*: Osborne Burton, Phillip Glanville, William Thomas Hart, Charles Frederick Luscombe, Joseph Edward Luscombe, John William Radford, James Thorne, John Warner. *Females*: Caroline Dunn, Marion Dunn, Elizabeth Elliott, Ellen Rossalia Falvey, Nellie Lucas, Lucy Symes, Eda Symes.

East Riding Asylum, Beverley.—*Males*: Robert Allison, John Barr, James Ower. *Females*: Mary Elizabeth Jessop, Annie Eliza Theakston.

Holloway Sanatorium, Virginia Water.—*Females*: Beatrice Fletcher, Alice Jenkins, Eva Morgan, Sarah Newnham, Florence E. M. Palmer, Ethel M. Ross.

Lancashire County Asylum, Rainhill.—*Males*: George Brown, William Bray, Thomas Cowley, Alexander Findlay, Charles Moore Harris, Daniel Jones, James Leaper, Frederick Orme, Thomas Scott, Andrew Seabrooke. *Females*: Mary Barton, Mary Burns, Edith Annie Booth, Kate Louise Brooks, Emily Chester, Helen Ann Dean, Annie Ely, Annie Mullins, Minnie Pryal, Elizabeth Price, Helen Stevenson, Beatrice Skinner, Mary Jane Tuck, Mary Margaret Tebay.

Borough Asylum, Nottingham.—*Males*: Thomas Alexander, William Anyan, Robert Bentley, Arthur Morris, John Millett, John Taylor. *Females*: Harriett E. Bassett, Myra Sandom Fletcher, Emma Warner.

Stafford County Asylum, Burntwood.—*Males*: Frederick Bannard, Robert Cartledge, William Jaques, Thomas Mander, William Massey, Albert Mellor. *Females*: Emmie Gardner, Annie Hall.

St. Luke's Hospital, London.—*Males*: Francis George Allway, Frederick English, Thomas William Kinsey, George Henry Smith. *Females*: Katherine Brusey, Alice Harwood, Elizabeth Hanbury, Kate Mercer, Hannah Turner.

Surrey County Asylum, Brookwood.—*Males*: Frank Budd, William Budd, George Ellis, Arthur Hardy, Arthur Marshall, James Shaw, Charles Thomas, John Tozer, George West, William Winch. *Females*: Emily Louisa Bedford, Georgina M.

Agnes Graves, Elizabeth Kemp, Ellen Mathews, Rhoda Newman, Isabella Young Rutherford, Frances Ellen Rowley, Margaret Donaldson Ray, Mary Dewfall Sharp, Elsie Tribe.

The Retreat, York.—*Females*: Elizabeth Bastow, Sarah Katherine Cox, Susan de Pomeroy Peters, Elizabeth Rymer.

West Riding Asylum, Menston.—*Males*: George Brumfit, George Clarke, Fredk. Doney, Frederick Thomas Fox, James Henry Jackson, Stephen Pounder, Walter Ryley, George Ernest Wells. *Females*: Esther Brear, Elizabeth Dennison, Annie France, Bertha Furniss, Selina Heap, Elizabeth Hill, Annie Perkins, Margretta Rowlands, Annie Shepherd.

West Riding Asylum, Wadsley.—*Males*: William Henry Armstrong, Albert Edward Booth, James Bowman Macdonald, James Froggat, Joseph Ling, John William Stephenson, Robert Arthur Wright. *Females*: Sarah Jane Dabill, Clara Keeley, Ada Mackerill, Rebecca Wheatley.

Private Nursing.—Frank Elphick.

Royal Asylum, Aberdeen.—*Males*: Peter McGillivray, George Robertson, Banffshire, George Robertson, Aberdeenshire, Alexander Shand. *Females*: Elizabeth Burnett, Jessie Middleton, Nicola Ross, Maggie A. Skinner, Lizzie Sharp, Mary A. Valentine.

Royal Asylum, Edinburgh.—*Males*: Alexander Crockatt, Thomas Douglas, John Hughson, Thomas Macdonald, Andrew Macdonald, John Macdonald, John Campbell Smith. *Females*: Nellie Clark, Maggie King, Williamina Milne, Isabella Silver, Mary Anne Watson.

Royal Asylum, Glasgow.—*Males*: James Potter, David Thomson. *Females*: Jane McGall, Annie McFadyen, Annie McKay, Susan O'Neill, Mary Emma Whyte.

Royal Asylum, Montrose.—*Males*: David Brown, William Burnett, Alexander Japp, John Roberts, Henry Smith. *Females*: Isabella Beattie, Barbara Brownie, Agnes Littlejohn, Mary Low, Anne C. Milne, Eola Nora Straiton.

James Murray's Royal Asylum, Perth.—*Male*: John Brown. *Females*: Ellen Craig, Jean Anne Glegg.

Roxburgh District Asylum, Melrose.—*Females*: Jane Coutts, Georgina Downie, Annie Mitchell, Mary Marshall, Annie Taylor.

Argyll and Bute District Asylum, Lochgilphead.—*Males*: James Barnaby, John Campbell, Robert Duncan, George Linton, John McGregor. *Female*: Maggie Park.

Smithston Asylum, Greenock.—*Males*: William Heggie, Robert Murray, Hugh Middleton, Malcolm McCallum, Donald McLean. *Females*: Mary Beattie, Jessie Bisset.

District Asylum, Londonderry.—*Females*: Sarah Cunningham Bovaird, Rebecca Chambers, Sarah Simpson Cunningham, Jane Linton, Catherine McBrearty, Susan McBrearty, Sarah McBrearty, Annie McDaid, Margaret Morrison, Mary Anne Morrison, Elizabeth Robinson, Catherine Sweeney, Catherine Toye.

District Asylum, Maryborough.—*Males*: John Bannon, Patrick Dowling, Joseph Deigan, John Dunne, John Grant, Martin Finlay, Patrick Keating, John Lowe, William Lodge, John Moran, Timothy White, Peter Whelan. *Females*: Bridget Finlay, Julia Lodge, Jane Starkie, Margaret Sheeran, Julia Whelan, Kate Wall.

QUESTIONS.

1. Describe the structure of Fat and the uses which it serves in the human body.
2. Describe generally the position, boundaries, and shape of the Chest, and mention the names and the relative positions of the organs contained in its cavity.
3. When the pulse, temperature, and respiration are said to be normal, what do you understand the statement to mean?
4. What class of patients are most liable to bed-sores? What preventive measures would you adopt, and treatment should they occur?
5. "Religious mania" is frequently mentioned in the daily papers; what form of insanity does the term convey to your mind?
6. What is meant by the Circulation of the Blood? Describe its mechanism, and briefly trace its course in the human body.

7. What are the Functions of the Brain? Describe the structure of its Grey Matter.
 8. What is the "Insane ear?" Describe any case of it you have seen from its onset to its termination.
 9. Mention the chief causes of loss of the power of movement of the upper and lower limbs, and the organs where this loss of power, in ordinary cases, originates.
 10. Give definitions of following terms :—Illusion, hallucination, fixed delusion.
 11. Purgative and Nutrient Enemata have been ordered for patients. Mention three of each class, giving quantity and mode of administration.
 12. In cases of Scarlatina what precautions would you recommend, and how would you proceed to "disinfect" the room, bedding, etc., after removal of patient? Three hours allowed to answer this paper.
- The first four questions are valued at 10 marks each, the eight following at 20 marks each. Two-thirds of the possible total of marks are required to pass.

The next examination will be held on Monday, the 5th day of November, 1894, and Candidates are earnestly requested to send in their schedules duly filled up to the Registrar of the Association not later than Monday, the 8th day of October, 1894, as this is the last day upon which, under the rules, applications for examination can be received.

For further particulars respecting the various examinations of the Association apply to the Registrar (Dr. Spence, Burntwood Asylum, near Lichfield), addressing letters in the first instance to 11, Chandos Street, Cavendish Square, London, W.

Dr. Robert Smith, of the Durham County Asylum, writes :—"You will be glad to hear that I have got from the Visitors a permanent rise of £2 per annum for each of the thirteen attendants or nurses who have passed for their certificate. This is an encouragement to both of us."

Dr. Barton, of the Surrey County Asylum, states in his annual report :—"To encourage the attendants to obtain this certificate for proficiency in nursing, the Committee, at my suggestion, increased the scale of wages of all those who held it by an annual increment of £1 up to £4."

Badge for the Holders of Certificates.

Dr. Spence has issued the following to the Medical Superintendents of Asylums :—

The Council having approved of a Badge, to be worn by the holders of the Certificate for Proficiency in Mental Nursing, I shall be happy, if you desire the certificated members of your staff to wear such a distinctive mark, to forward you any number you require upon hearing from you.

The Badge is in bronze, and can be had either with a brooch pin or with a ring suspender; should you order any kindly say which you prefer.

The cost will be for the present 9s. per dozen.

The Council, in approving of the Badge, expressed a strong opinion that it should not be a gift to the Nurse or Attendant, but should remain the property of the asylum, and be returned with the keys, etc., at the termination of the engagement.

Yours truly,

J. BEVERIDGE SPENCE, Registrar.



Correspondence.

To the Editor of "THE JOURNAL OF MENTAL SCIENCE."

DEAR SIR,—I have the honour to announce that the "American Journal of Insanity," which has been edited and published at the Utica State Hospital for the past fifty years, has lately been sold and transferred to the American Medico-Psychological Association, of which Society it will henceforth be the accredited organ.

The "Journal" will be edited *ad interim* by a Publication Committee consisting of Dr. Edward Cowles, President of the Association, Boston, Mass.; Dr. Henry M. Hurd, Secretary of the Association, Johns Hopkins Hospital, Baltimore, Md.; and Dr. Richard Dewey, Chicago, Ill., with the last-named gentleman in immediate editorial charge.

Until further notice it will be published in Chicago, Ill.

Exchanges, books for review, and all business communications should be addressed as follows:—

DR. RICHARD DEWEY,
Managing Editor,
"American Journal of Insanity,"
1112, Venetian Buildings, 34, Washington St.,
Chicago, Ill.

Bespeaking for the "Journal," under its new and favourable auspices, your generous encouragement and support, and thanking you, as *ex-editor*, for innumerable courtesies in the past,

I am, yours faithfully,
G. ALDER BLUMER.

Utica State Hospital, Utica, N.Y.,
July 12, 1894.

[We wish every success to our contemporary under its new departure. The late Editor's services are recognized in this country as they justly are in the States.—ED.]

IN SEARCH OF A MAGISTRATE.

To the Editors of "THE JOURNAL OF MENTAL SCIENCE."

GENTLEMEN,—In the hope that something may be done to remedy so great an evil, I ask permission to refer to the difficulty, worry, and serious delay arising out of the necessity of obtaining a magistrate's order for the admission of a private insane patient into an asylum or as a single patient. It is useless now to attempt to repeal the Lunacy Act of 1890; all I maintain is that so long as it is, unfortunately, in force, the means of complying with the enactment requiring a judicial authority should be sufficiently easy. The procedure is, on the contrary, difficult, harassing, mischievous, and often impracticable. To the friends of the patient, who are already suffering sufficiently from a sad calamity, it is extremely painful. This is even needlessly aggravated by the discourtesy of particular magistrates. Only last week a lady in search of "a magistrate specially appointed under the Lunacy Act to grant orders" was rudely treated, and when the reason assigned for troubling this august functionary was given, namely, that no magistrate in the parish where the patient resided could be procured, the brusque reply was that the patient must wait till he returned home. This was after the certificates had been signed, and would lapse in a week. To advise waiting until these documents have become out of date, and therefore useless, is unfeeling irony.

But what shall we say of the London parish in which the specially-appointed magistrates are all on their holidays? I say it is a scandal. As a lunacy doctor, I have recently been unable to obtain an order from a single magistrate. That there are excellent reasons why some should be away, I am well aware; to expect all to stay at home would be absurd; but surely there should be some arrangement among themselves to prevent the absence of all at the same time. I am assured by the relieving officer that it causes him the greatest trouble. After inquiring at a police station for a list of magistrates, which was with difficulty discovered, I was correctly informed that I should fail to find one. I, however, made some calls. All of the gentlemen were out of town, and I was told that they would be away an indefinite time. I inquired whether they had left any instructions or references. None whatever. In another case the magistrate had actually let his house for a long period. And here I would observe that at other periods of the year than the autumn holidays the difficulty of obtaining the services of a magistrate for lunacy orders is great in consequence of many of them being engaged in business in the City from morning to evening, just the time of day when they are required. Again I inquired at the police station whether a magistrate would sign an order on presentation of the petition and the medical certificates by the petitioner at the Court. I was told that the patient (a lady) must always be brought to the magistrate, and on my informing him that she was in a condition in which this could not be done, the reply was, "Then she must wait till she is!"

I have said that there are discourteous magistrates. There are others who are lethargic. When time is all important, it is a little too much when a magistrate takes two hours and a half to fill up the order, including making a copy of the entire document. The same worthy on another occasion consumed seven hours. For the friends of insane persons to have their time thus frittered away cannot be characterized in too severe terms.

Whatever the remedy may be, something must be done to remedy this disgraceful delay and often impossibility in obtaining magisterial orders. To increase the number naturally suggests itself, but this can only answer if magistrates are willing to perform the duties as well as enjoy the honour of their office.

I am, etc.,
F.R.C.P.

London, Sept. 1st.

[We consider that the disregard of their lunacy duties on the part of many magistrates ought to be brought under the notice of the Lord Chancellor.—Ed.]

PHOTOGRAPHIC GROUP OF THE DUBLIN MEETING.

Photographic groups of Members of the Association taken at the Richmond Asylum may be had from Messrs. Chancellor, Lower Sackville Street, Dublin, price in silver type, 3s. 6d., unmounted; 4s. 6d., mounted. Two groups were taken, of which that one which is distinguished as the "lawn" group is the best generally.

NOTE.

Article on the "Increase of Insanity in Ireland."—There are occasional slight discrepancies between the statistics in this Article and those in the Inspectors' Reports. There are various reasons for this, one being that the numbers under the heading "Workhouses" are exclusive of certain patients located in Workhouses, but who belong to and are included in the population of the "District Asylums." Such discrepancies mostly affect only decimal points, the general results remaining the same.

Appointments.

BAYLEY CECIL, L.R.C.P. and S.Edin., L.F.P.S.G., appointed Junior Assistant Medical Officer to the Lancashire County Asylum, Whittingham (incorrectly reported in last number).

BAYLEY, J. H., M.B., C.M.Edin., appointed Senior Assistant Medical Officer to St. Andrew's Hospital for Mental Diseases, Northampton.

BREMNER, D. C., M.B., C.M.Edin., appointed Assistant Medical Officer to the East Riding Asylum, Beverley.

BRUCE, C., M.B., Assistant Medical Officer to the Derby Borough Asylum, appointed Assistant Physician to the Royal Edinburgh Asylum, Morningside.

CORNER, HARRY, M.B.Lond., M.R.C.S., L.R.C.P., M.P.C., appointed Medical Superintendent of the Earlswood Asylum, Surrey.

DIXON, H.L., M.A., M.B., B.C., and D.P.H.Camb., appointed Assistant Medical Officer to St. Andrew's Hospital for Mental Diseases, Northampton.

EARDLEY-WILMOT C., M.D., appointed Senior Assistant Medical Officer to the Middlesex County Asylum, Tooting.

EKINS, FRANK ASHBY, M.B., C.M.Edin., appointed Medical Superintendent to the Borough Asylum, Sunderland.

KEAY, JOHN, M.D.Glasgow, appointed Medical Superintendent to the Northern Counties District Asylum, Inverness.

MACLAREN, J., M.B., C.M.Edin., appointed Fifth Assistant Medical Officer to the West Riding Asylum, Wadsley, Sheffield.

ROLLESTON, L. W., M.B., appointed Junior Assistant Medical Officer to the Middlesex County Asylum, Tooting.

SKEEN, JAMES HUMPHREY, M.B., C.M.Aberd., appointed Medical Superintendent of the Glasgow District Asylum, Bothwell.

WILSON, GEO. R., M.B., C.M.Edin., appointed Medical Superintendent to the Mavisbank Asylum, Lasswade, Midlothian.

DATES OF NEXT MEETINGS.

The next General Meeting of the Association will be held at the Rooms of the Association, 11, Chandos Street, Cavendish Square, London, on the third Thursday in November.

FLETCHER BEACH,
Hon. General Secretary.

The Scottish Division of the Association will hold a Meeting in Edinburgh on the second Thursday in November.

A. R. TURNBULL,
Divisional Secretary for Scotland.

The South Western Division of the Association will hold a meeting in the second week of December at Bailbrook House, Bath.

P. W. MACDONALD,
Divisional Secretary for S.W.D.

The Irish Division of the Association will hold a meeting at Cork on October 25th.

OSCAR WOODS,
Divisional Secretary for Ireland.

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 1873-1881.) (*PRESIDENT 1888.*)
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1873. Newington, H. Hayes, M.R.C.P. Edin., M.R.C.S. Eng., Ticehurst, Sussex. (*PRESIDENT, 1889. Treasurer.*)
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1893. Nobbs, Athelstane, M.B., C.M. Edin., Assistant Medical Officer, Northumberland County Asylum, Morpeth.
1888. Nolan, Michael J., L.R.C.P.I., M.P.C., Medical Superintendent, District Asylum, Downpatrick.

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1859. Rogers, Thomas Lawes, M.D. St. And., M.R.C.P. Lond., M.R.C.S. Eng., Eastbank, Court Road, Eltham, Kent. (PRESIDENT, 1874.)
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 1885. Sells, H. T., 2, London Road, Northfleet, Kent.
 1881. Semal, M., M.D., Mons, Belgium. (*Hon. Member.*)
 1893. Semelaigne, René, Dr., Secrétaire des Séances de la Société Médico-Psychologique de Paris, Avenue de Madrid, Neuilly, Seine, Paris. (*Corresponding Member.*)
 1882. Seward, W. J., M.D., Med. Superintendent, Colney Hatch, Middlesex.
 1891. Shaw, John Custance, M.R.C.S.Eng., L.R.C.P.Lond., Assistant Medical Officer, Hull Borough Asylum.
 1867. Shaw, Thomas C., M.D. Lond., F.R.C.P. Lond., Medical Superintendent, London County Asylum, Banstead, Surrey.
 1880. Shaw, James, M.D., Donard House, Kensington, Liverpool.
 1891. Shaw, Harold B., B.A., M.B., B.S., D.P.H.Camb., Senior Assistant Medical Officer, County Asylum, Fareham Hants.
 1882. Sheldon, T. S., M.B., Med. Supt., Cheshire County Asylum, Parkside, Macclesfield.
 1886. Sherrard, C. D., M.R.C.S., Avalon, Eastbourne.
 1877. Shuttleworth, G. E., M.D. Heidelberg, M.R.C.S. and L.S.A. Eng., B.A. Lond., late Medical Superintendent, Royal Albert Asylum, Lancaster; Ancaster House, Richmond, Surrey.
 1880. Sibbald, John, M.D. Edin., F.R.C.P. Ed., M.R.C.S. Eng., Commissioner in Lunacy for Scotland, 3, St. Margaret's Road, Edinburgh. (*Editor of Journal, 1871-72.*) (*Hon. Member.*)
 1889. Simpson, Samuel, M.B. and M.C.H. Dublin, M.P.C., Northumberland House, Green Lanes, Finsbury Park, N.
 1888. Sinclair, Eric, M.D., Med. Supt., Gladsville Asylum, New South Wales.
 1870. Skae, C. H., M.D. St. And., Medical Superintendent, Ayrshire District Asylum, Glengall, Ayr.
 1894. Skae, Frederick Macpherson Traill, M.B., C.M., M.P.C., Junior Assistant Medical Officer, Stirling District Asylum, Larbert.
 1891. Skeen, James Humphrey, M.B., C.M. Aber., Medical Superintendent, Glasgow District Asylum, Bothwell.
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 1886. Smith, R. Gillies, M.A., B.Sc., M.R.C.S., City Asylum, Gosforth, Newcastle-on-Tyne.
 1885. Smith, R. Percy, M.D., B.S., F.R.C.P., M.P.C., Bethlem Hospital, St. George's Road, S.E.
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 1884. Smith, W. Beattie, F.R.C.S. Ed., L.R.C.P. Lond., Medical Supt., Hospital for the Insane, Ararat, Victoria.
 1892. Smyth, W. Johnson, M.B. Edin., Station Hospital, Rochester Row, Vincent Square, London, S.W.
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 1894. Stevens, Thomas George, L.R.C.S.I., L.K.Q.C.P.I., Assistant Medical Officer, Central Criminal Asylum, Dundrum, Ireland.
 1868. Stewart, James, B.A. Queen's Univ., F.R.C.P. Edin., L.R.C.S. Ireland, late Assistant Medical Officer, Kent County Asylum, Maidstone, Dunmurry, Sneyd Park, near Clifton, Gloucestershire.

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1868. Strange, Arthur, M.D. Edin., Medical Superintendent, Salop and Montgomery Asylum, Bicton, near Shrewsbury.
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1857. Tate, William Barney, M.D. Aberd., M.R.C.P. Lond., M.R.C.S. Eng., Med. Supt. of the Lunatic Hospital, The Coppice, Nottingham.
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1881. Tuke, Chas. Molesworth, M.R.C.S., Manor House, Chiswick.
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1878. Urquhart, Alexr. Reid, M.D., Physician Supt., James Murray's Royal Asylum, Perth. (*Assistant Editor of Journal.*) (*Late Hon. Sec. for Scotland.*)
1894. Vincent, William James, M.B. Durh., Assistant Medical Officer, Borough Asylum, Nottingham.
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1881. Voisin, A., M.D. 16, Rue Séguin, Paris. (*Hon. Member.*)
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1884. Walker, E. B. C., M.B., C.M. Edin., Assist. Med. Officer, County Asylum, Haywards Heath.
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1894.	Wood, Guy Mills, M.B. Durh., Assistant Medical Officer, County Asylum, Rainhill, near Prescot, Lancashire.
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1885.	Woods, J. F., M.R.C.S., Med. Supt., Hoxton House, N.
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Adkins, Percy.
Ainley, Fred Shaw.
Alexander, Edward H.
Anderson, John.
Anderson, A. W.
Anderson, Bruce A.
Andrieson, W.
Armour, E. F.
Attegalle, T. W. S.
Aveline, H. T. S.
Barbour, William
Barker, Alfred James Glanville.
Begg, William.
Belben, F.
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Blachford, J. Vincent.
Black, Robert S.
Black, Victor.
Bond, C. Hubert.
Bond, R. S. S.
Bowlan, Marcus M.
Boyd, James Paton.
Bristowe, Hubert Carpenter.
Brodie, Robert C.
Bruce, John.
Brush, S. C.
Bullock, William.
Cameron, James.
Campbell, Alfred W.
Campbell, Peter.
Calvert, William Dobree.
Carmichael, W. J.
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Carter, Arthur W.
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Chapman, H. C.
Collie, Frank Lang.
Collier, Joseph Henry.
Connolly, Richard M.
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Cowan, John J.
Cowie, C. G.
Cowie, George.
Cowper, John.
Craig, M.
Cram, John.
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Cullen, George M.
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Davidson, William.
Davidson, Andrew.
De Silva, W. H.
Distin, Howard.

Drummond, Russell J.
Donaldson, R. L. S.
Douglas, A. R.
Eames, Henry Martyn.
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Eden, Richard A. S.
Edgerley, S.
Elkins, Frank A.
English, Edgar.
Eustace, J. N.
Evans, P. C.
Ewan, John A.
Ezard, Ed. W.
Farquharson, William F.
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Ferguson, Robert.
Fitzgerald, Gerald.
Fraser, Thomas.
Fraser, Donald Allan.
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Gawn, Ernest K.
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Goldie, E. M.
Goodall, Edwin.
Graham, F. B.
Grant, J. Wemyss.
Grant, Lacklan.
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Hastlam, W. A.
Hassell, Gray.
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Henderson, Jane B.
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Hennan, George.
Hewat, Matthew L.
Hicks, John A., jun.
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Ingram, Peter R.
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- King, Frederick T.
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 * Mortimer, John Desmond Ernest.
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 Rose, Andrew.
 Rowand, Andrew.
 Rust, James.
 Scott, George B.
 Scott, J. Walter.
 Scott, William T.
 Sheen, Alfred W.
 Simpson, John.
 Simpson, Samuel.
 Skene, James H.
 Snyth, William Johnson.
 Sproat, J. H.
 Stanley, John Douglas.
 Staveley, William Henry Charles.
 Steel, John.
 Stewart, William Day.
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 Slater, William Arnison.
 Smith, Percy.
 Thompson, George Matthew.
 Thorpe, Arnold E.
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 Turner, M. A.
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 Waterston, Jane Elizabeth.
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 Wickham, Gilbert Henry.
 Whitwell, Robert B. H.
 Will, John Kennedy.
 Williams, D. J.
 Williamson, A. Maxwell.
 Wilson, John T.
 § Wilson, G. R.
 Wilson, James.
 Wilson, Robert.
 Wood, David James.
 Yeoman, John B.
 Young, D. P.
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 Zimmer, Carlo Raymond.

* To whom the Gaskell Prize (1887) was awarded.

† To whom the Gaskell Prize (1889) was awarded.

‡ To whom the Gaskell Prize (1890) was awarded.

§ To whom the Gaskell Prize (1892) was awarded.

INDEX MEDICO-PSYCHOLOGICUS.

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